A.I.A. FILE NO. 7—CIRCULAR NO. 17

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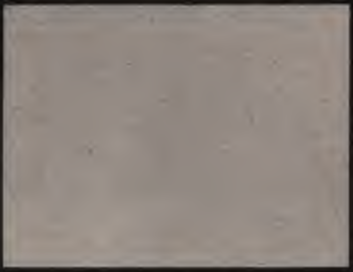
block


concrete

brick

stucco

stone

tile

1961
SPECIFICATION GUIDE FOR
THE THORO SYSTEM

WATERPROOFING PROTECTIVE AND CORRECTIVE TREATMENTS

STANDARD DRY WALL PRODUCTS, INC.

Centerville Plant

New Eagle Plant

WATERPROOFING

corrective and protective treatments for masonry

field engineering service

Standard Dry Wall Products, Inc. maintains a complete staff of field engineers who service jobs throughout the United States, Canada, Latin American countries and Hawaii. They are all highly experienced, well-trained men who are more than pleased to assist you with your problems and offer recommendations and specifications. See page 24.

experience

Since 1912, products manufactured by Standard Dry Wall Products, Inc. have been in constant use, waterproofing and maintaining thousands of masonry structures, above and below grade. The management responsible for these products are people with years of construction experience; people who understand the problems. This knowledge, the years of actual job experience plus exhaustive tests and experiments assure the architect, engineer, contractor and builder of complete satisfaction.

a complete service

Standard Dry Wall Products, Inc. manufactures a complete line of materials for the protection, repair and decoration of masonry. The architect, engineer or contractor need look no further for materials that can take care of his every masonry need. THORO System materials are stocked by distributors and dealers in every locality, providing an immediate source of supply.

Public Library — Batavia, New York
Contractor: Genesee Building and Waterproofing Company, Inc.
Materials Used: DRYJOINT and THOROCLEAR 777

Terminal Tower — Cleveland, Ohio
Two coats of standard gray THOROSEAL applied, using approximately 2½# per square yard for each coat.

Bagley School — Pontiac, Michigan
Contractor: Nolan Gottschall
Two brush coats Foundation Coating used on all exterior concrete foundation and tunnel walls and two coats THOROSEAL on interior block walls, as specified by architect, William Zimmerman.

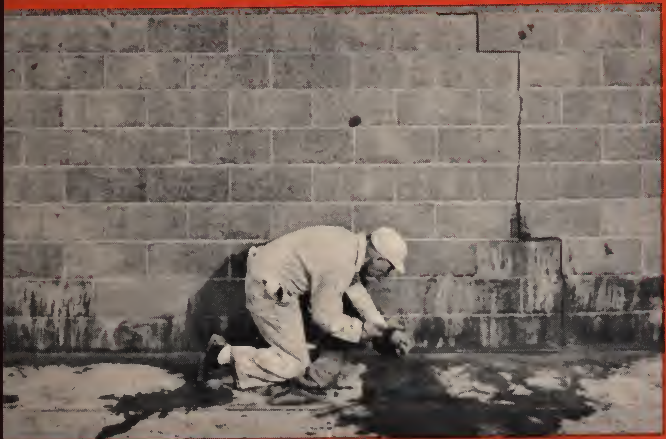
Wuensche Grain Elevators—Corpus Christi, Texas
General Contractor: T. B. Moran, Alice, Texas
Two coats THOROSEAL applied.

Copyright 1958: Standard Dry Wall Products, Inc.

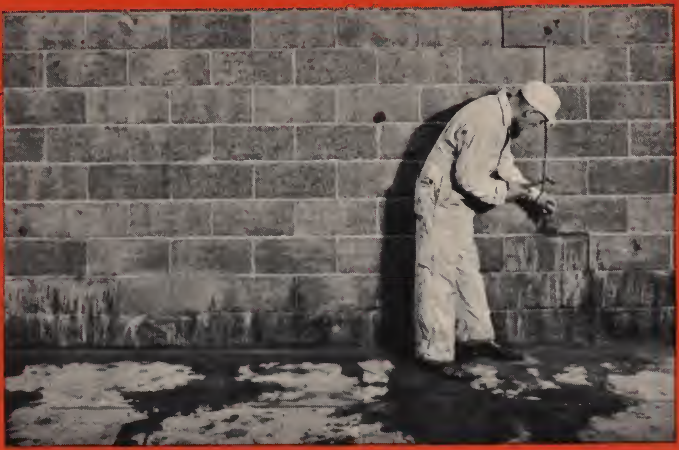
product	use	page
THOROSEAL—a cement-base waterproofing for sealing all types of masonry. Available in white and colors.	for waterproofing masonry and concrete, above and below grade, interior and exterior, where surface is exposed.	6
THOROSEAL Foundation Coating—a cement-base compound not subject to disintegration by ground water.	for exterior waterproofing foundation walls of poured concrete, block, brick; for waterproof back-up plaster within masonry walls; not necessarily uniform in color and not recommended for work exposed.	7
WATERPLUG—a quick-set hydraulic cement.	for instantly stopping flow of water through holes and cracks in masonry and concrete.	8
THORITE—a nonshrink, nonslump and nonmetallic patching mortar.	for rehabilitating spalled and disintegrated concrete; requires no forms for patching construction faults.	9
D-J GROUTING MORTAR—a cement-base grouting compound.	for grouting or sealing porous and cracked joints in masonry of non-porous units of brick, tile, etc.	10
DRYJOINT—a nonshrink waterproof pointing mortar. Gray and white are standard colors; can be furnished upon request to match masonry.	for repointing joints in all types of masonry, even limestone and other easily stained stones.	11
THOROCLEAR SPECIAL — a water-emulsion type, silicone transparent water repellent.	for sealing most limestones and other porous stone and horizontal concrete surfaces; for preventing penetration of moisture into the surface.	11
THOROCLEAR 777—a solvent type, silicone transparent water repellent.	for sealing brick, concrete, stucco, asbestos shingles, etc. above grade without changing the appearance; for preventing penetration of moisture into the surface. (For limestone and other porous stones and horizontal concrete surfaces see above.)	12
THOROSPAN—a polysulfide sealant.	for use in calking, sealing and glazing where expansion and contraction are factors.	13
THOROBOND—a bonding agent for plaster and for concrete.	for bonding plaster to concrete or masonry; for bonding concrete to concrete; for bonding THOROSEAL to nonabsorbent masonry surfaces.	14
THOROPATCH—crack resistant acrylic patching material.	for both interior and exterior; resurfacing and leveling concrete floors, patching concrete, brick and masonry.	15
Acryl 60—a specially prepared acrylic liquid.	to be added to cement and sand mixes and concrete mixes.	15
THOROSET METALLIC FLOOR HARDENER—specially graded iron aggregate, free of oil or nonferrous metals.	for hardening concrete floors and toppings during installation.	16
THOROSET METALLIC GROUTING COMPOUND—a finely graded mixture of iron powders, cement binders, accelerators and dispersing agents.	for producing a nonshrink concrete or mortar grout.	16
P & W FLOOR HARDENER—a chemical floor hardener for concrete and terrazzo floors.	for hardening concrete and terazzo floors; prevents dusting and disintegration.	17
THOROCLEAN—dry acid masonry cleaner.	for cleaning efflorescence, dirt, mortar deposits; also for conditioning concrete prior to painting.	17
QUICKSEAL—a cement-base finish coat; available in white and colors. Meets Federal Specification TT-P-21.	for cementitious extra-fine finish in selected colors on concrete and masonry walls, exterior or interior; also used as a finish coat over THOROSEAL.	18
VABAR—a cement-base plaster bond; also a vapor barrier.	for bonding plaster to back-up walls of block, tile, brick or other type masonry; also functions as a vapor barrier.	18
THOROSHEEN RW7—an acrylic-base paint, acid, alkali, and mildew resistant.	for decorating masonry walls, interior or exterior, asbestos shingles; can be used over "green" plaster; specially designed as a color coat over THOROSEAL.	19
THOROLOK Blue Star Brand—a rubber-base floor paint.	for decorating concrete floors; to be applied over THOROLOK #100 Sealer.	19
THOROLITH—a Pozzuolanic nonshrink plasticizer.	for eliminating excessive mixing water in concrete and mortar; increases density, checks capillarity and improves placeability.	
suggested specifications		20
representative users		5
sales engineers		24

WATERPROOFING INTERIOR WALLS

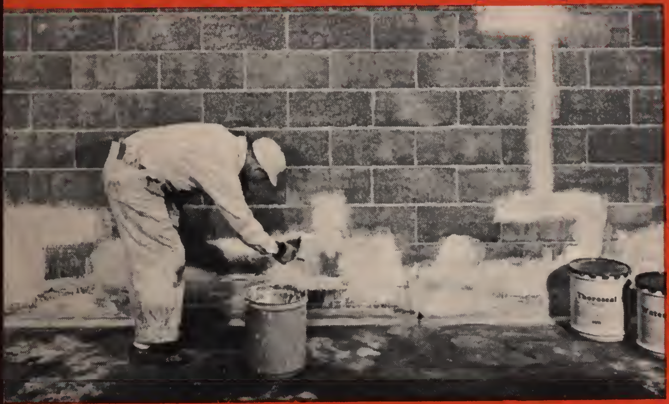
THORO system materials work under the most adverse conditions . . .



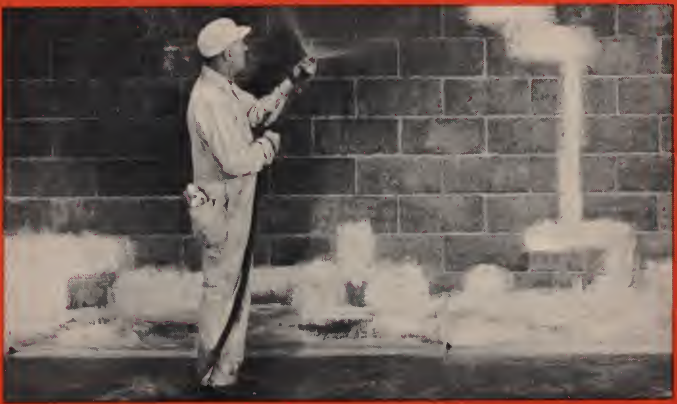
1. The workman is tapping wall to relieve water pressure while materials are being applied. Tapping wall to relieve pressure is necessary only in extreme cases to make application easier. With chisel and hammer, workman has thoroughly cleaned and roughened angle where floor and walls meet, removed all dead mortar from mortar joints and otherwise prepares surfaces near floor line for application of WATERPLUG.



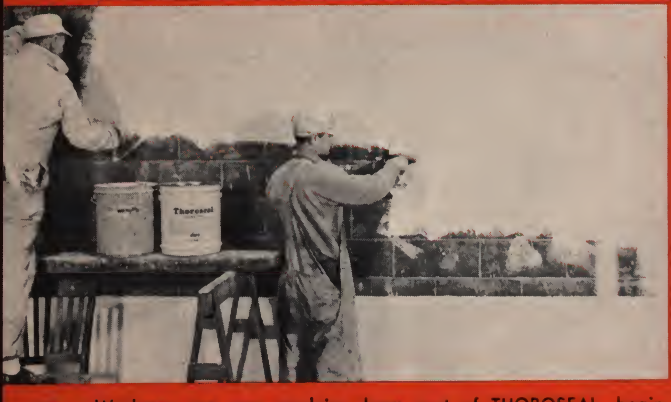
2. Workman, having previously opened settlement crack for sealing with WATERPLUG, is demonstrating how work should be done. Always make room for WATERPLUG by widening and opening crack. In applying WATERPLUG, force material into crack as far as possible. If there is considerable water pressure, crack may be filled by hand. Beginning at top, proceed downward with short sections, holding WATERPLUG in place three minutes.



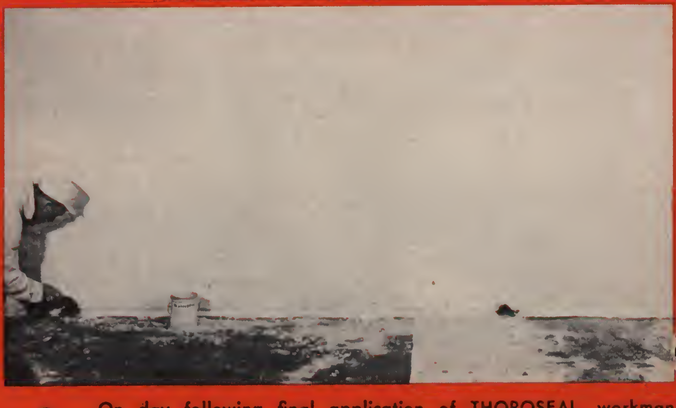
4. Workman has now sealed all defects, mortar joints and cracks in masonry, has formed cove at angle between floor and wall and is covering WATERPLUG patches immediately. Covering the WATERPLUG is necessary, especially when other applications are to be made, to keep darker WATERPLUG from discoloring the finish applications and to form a good bond between WATERPLUG and THOROSEAL (Base Coat).



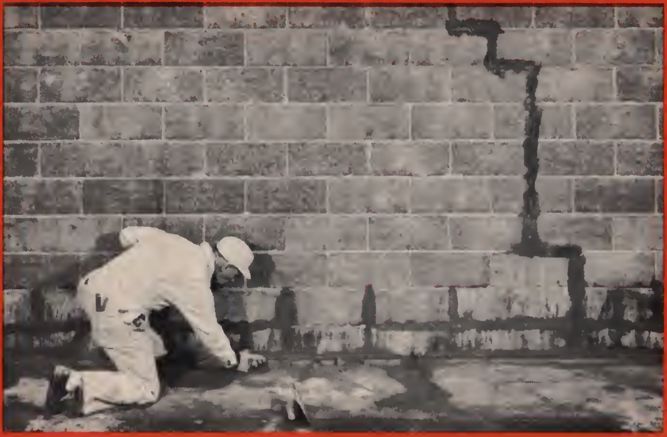
5. Workman, having sealed all defects and cracks so that no further water is coming through, except at weep holes which he has previously prepared, is now dampening surface of the wall immediately before application of THOROSEAL (Base Coat). This procedure is necessary to make application easier, make a better bond and to assist the applier in brushing THOROSEAL into voids and cracks of the surface. Dampening is a necessary procedure for a successful job.



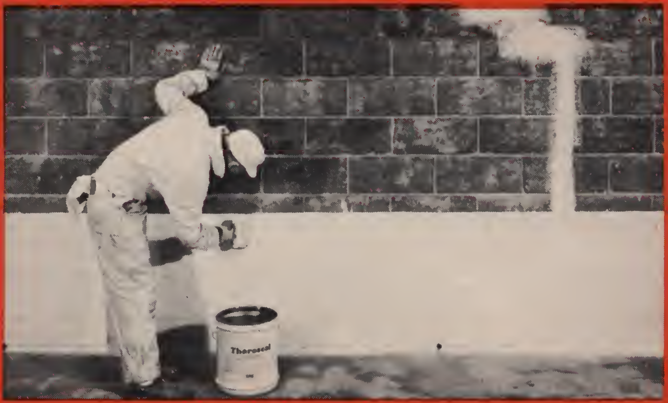
7. Workmen are now applying base coat of THOROSEAL, beginning at top and continuing around entire foundation, using two pounds THOROSEAL to each square yard of surface and continuing over previously-applied, heavier application shown at base of wall. If surface becomes dry and THOROSEAL does not flow into voids, cracks and joints easily, dampen immediately ahead of application with brush which has been dipped into pan of clean water. Do not thin material.



8. On day following final application of THOROSEAL, workman plugs weep holes originally opened in wall to relieve pressure. THOROSEAL is now sufficiently hard to withstand pressure. Workman fills holes with WATERPLUG and immediately applies brush coat of THOROSEAL over holes to hide darker material from showing through finished work.



3. Workman is now engaged in sealing, with WATERPLUG, the angle where floor and walls meet, bad mortar joints and settlement cracks. Angle must be roughened and all masonry surfaces clean and damp when applying WATERPLUG. WATERPLUG is quickly placed with a round tool and smoothed out. Do not work WATERPLUG too long; just enough to get it in place.



6. The workman is now applying, with 6" calcimine brush, a heavy base application of THOROSEAL. It is always necessary to make application heavier at base of wall near floor line, where there is extreme water pressure after rains and during wet spells. At this point, it is necessary to use 3 or 4 pounds of THOROSEAL to each square yard, applied in two brush coats.

9. Workmen, having closed weep holes and hidden them with THOROSEAL, now applies finish coat of THOROSEAL (or QUICKSEAL, as job conditions require), which further seals and gives added beauty. THORO System materials as herewith demonstrated, applied on inside against pressure, assures the building owner of not only a dry and sanitary room but beautiful as well.

representative users of THORO System waterproofing and maintenance products

government

National Advisory Committee on Aeronautics
U. S. Air Force
U. S. Army
U. S. Atomic Energy Commission
U. S. Marine Corps
U. S. Navy

schools, universities, public buildings

Catherine Booth Memorial Hospital—Cincinnati, Ohio
Cincinnati Zoo
Cleveland Municipal Stadium
Cornell University—Ithaca, New York
Florida Southern University—Lakeland, Fla.
Foundation for Boys—Cincinnati, Ohio
Hillsboro High School—Nashville, Tenn.
Indiana Soldiers & Sailors Monument—Indianapolis, Ind.
Mercy Hospital—Miami, Fla.
Newport High School Stadium—Newport, Ky.
Ohio State University—Columbus, Ohio
Texas Military Institute—San Antonio, Texas
University of Kentucky—Lexington, Ky.
University of San Diego
Xavier University—Cincinnati, Ohio

utilities

Cincinnati Gas and Electric Company
Cincinnati Water Works
Cleveland Transit System
Columbus Southern Electric Company
Dayton Power & Light Company
Dayton Water Works
New York State Electric Company
New York State Natural Gas Company
Niagara Electric Power & Light Company
Public Service Company of Indiana
Rochester Gas & Electric Company
Rochester Telephone Corporation
Tennessee Valley Authority
Toledo Edison Company

business & industry

Albers Super Market—Cincinnati, Ohio
Aluminum Company of America
Atlantic Refining Corporation
Avco Manufacturing Company—Cincinnati, Ohio
Brown & Williamson Tobacco Company—Lexington, Ky.
Burlington Industries Incorporated
Calumet Farms—Lexington, Ky.
Cincinnati Milling Machine Company
Eastman Kodak Company
E. I. DuPont DeNemours & Company
Eli Lilly Company
Endicott Johnson Corporation
General Analine & Film Corporation—Ansco Division
IBM Corporation
Jones & Laughlin Steel Corporation
Joy Manufacturing Company
Libbey-Owens-Ford Glass Company
Murray Ohio Manufacturing Company
New York Central Railroad
Olin Mathieson Chemical Corporation
Pennsylvania Railroad
Pepsi Cola Bottling Company
Procter and Gamble
Republic Steel Corporation
Schlitz Brewing Company
Sperry-Rand Corporation
Thompson Products, Incorporated
Trane Company
Union Carbide Corporation
U. S. Concrete Pipe Company
U. S. Steel Corporation

THOROSEAL cement-base masonry waterproofing

THOROSEAL is a cementitious material, packaged in dry powder form, applied by coarse-fibered brush or, for extreme pressure, by brush and trowel. Designed for maximum strength, durability and sealing qualities, THOROSEAL fills and seals pores and voids in masonry surface, assuring complete protection against moisture penetration. Because of free-flowing qualities of THOROSEAL, scrubbing into surface is unnecessary. THOROSEAL is versatile in that it is used efficiently below grade, either as an exterior foundation coating or interior application against hydrostatic pressure. Used above grade, exterior or interior, THOROSEAL provides lasting decoration and protection. By use of brush, sponge or burlap, fine textures can be obtained.

uses

Wherever wall areas of poured concrete, stone, brick, or any type manufactured building block are to be sealed, either inside or outside, against penetration of water. For basements and all types masonry below ground; cisterns, grain elevators, reinforced concrete buildings, homes, garages, commercial buildings and all types of masonry above ground. THOROSEAL is used on parapet walls, to impregnate ground slabs against moisture penetration as a sandwich coat between rough and finish concrete, as a base coat for decorative coatings such as QUICKSEAL and THOROSHEEN RW7, also on swimming pools.

advantages

- a heavy base cementitious coating, not a thin paint film.
- used efficiently on interior below grade walls against hydrostatic pressures, eliminating costly digging of exterior fill.
- exceptional filling qualities assures complete sealing of masonry.
- economical—twice the protection at ½ the cost of other cementitious waterproofing materials.
- durable—far outlasts other coatings and paints.
- easily applied—no scrubbing necessary—reduces labor costs.
- the ideal coating for old brick buildings, exceptional filling qualities eliminating most of the need for tuckpointing.
- breathes—prevents build-up of water vapor which causes blistering, flaking and peeling of paint films and other non-breathing coatings.
- compatible to the masonry surface to which it is applied; actually becomes part of the wall.
- meets Federal specifications.

application

Mix in pan, drum or steel box, as requirements demand. Place THOROSEAL in mixing container first, round out in center and then gradually add mixing water. Mix thoroughly and use only sufficient water to bring batch to consistency of pancake batter. Use same proportion of water in every batch. THOROSEAL should never be mixed to thin consistency of paint. Let material soak for thirty minutes, to fatten mix. This will make application easier and give more uniform color surface.

All surfaces to be coated shall be clean and free of paint, whitewash, dirt, grease, etc. Dampen surface of masonry immediately ahead of application. Do not "paint" THOROSEAL. Lay it on wall and level it out.

If wall becomes dry or THOROSEAL starts to pull during application, dampen wall again. Do not thin material.

Do not wet wall excessively in fall, winter or spring months for outside applications. Do not apply in temperatures below 40° F, or when temperatures are expected to fall under 40° F within 24 hours. Can be applied by brush or trowel.

Jobs calling primarily for waterproofing require two coats of THOROSEAL base coat the first day; second application following day or before material has become too hard or glazed for good bond. Dampen first coat before applying second. If THOROSEAL is applied during exceptionally hot or windy weather, surface curing by several fog sprayings of water during the day to prevent too rapid drying is recommended.

coverage

Ordinary water pressures—2# per square yard, base coat. 1# per square yard, second coat.

Extreme water pressures—1 brush coat and one trowel coat.

50# bag @ 2# per square yard—225 sq. ft.
50# bag @ 1# per square yard—450 sq. ft.
60# drum @ 2# per square yard—270 sq. ft.
60# drum @ 1# per square yard—540 sq. ft.

NOTE: FOR TROWEL APPLICATIONS
Add 25 lbs. clean white silica to a 50 lb. sack.
Add 30 lbs. clean white silica to a 60 lb. drum.

packaging

10# can—1 gallon, 25# three-ply paper bag, 50# four-ply paper bag, 60# steel drum.

See circular No. 16

tests

The following results are from tests made by the Pittsburgh Testing Laboratory, Pittsburgh, Pa.

compression	7 days	28 days
average strength in lbs./sq. in.	5000	6125

Flow—thirty ½" drops in thirty seconds by 10" flow table method: Increase in diameter of flows—1.63.

absorption—boil method	1 hr.	3 hrs.	5 hrs.	24 hrs.
percent absorption	1.84	2.53	3.01	5.39

Loss by boiling—1.42%.

Abrasion—A three pound per square yard application of THOROSEAL on a concrete slab was tested. The sample satisfactorily met the 3000 litre sand abrasion requirements in a test following the general procedure outlined in method 619.1 of Federal Specification TT-P-141b dated January 15, 1949.

Damp, dismal, unusable basement becomes dry and beautiful through use of THOROSEAL.

Remington Rand, Inc.—Herkimer, New York
Stucco surface coated with buff THOROSEAL as a waterproof and surface protective coating.
Materials were applied by Remington Rand, Inc., Maintenance Dept.

THOROSEAL FOUNDATION COATING cement-base foundation coating

THOROSEAL FOUNDATION COATING is a heavy cementitious sealer that actually becomes a part of the masonry to which it is applied, stopping water and dampness from entering the walls.

uses

On all foundations of poured concrete, manufactured block, brick and over cement parging. For back plastering between stone and back-up unit and brick and back-up unit. Can be used as waterproofed parge coat.

advantages

- cement base compatible with cement foundations. Because foundation walls are of cement construction, a compatible cementitious sealer actually becomes part of the wall and provides the best possible protection.
- lower cost than membrane, mastics or metallics.
- easy to apply.
- no odor or mess.
- accepted in most states by F.H.A., V.A., and private housing associations, building codes, banks and lending institutions.
- not affected by acids in soils—great durability.
- can be extended from grade to brick line and not be unsightly!
- becomes part of the wall and not merely a "film" covering the surface. There is no loss of bond due to any structural failure.
- does not require immediate backfilling.

application

concrete block, brick foundations

Clean mortar droppings from top of footer with pointing trowel, and form cove at this point with THOROSEAL FOUNDATION COATING, of mortar consistency.

Dampen surface of masonry with fine fog spray of water from hose. Make sure all corners of tile and other breaks in surface have been pointed and filled.

Place THOROSEAL FOUNDATION COATING in mixing container, add water and stir, bring batch to heavy batter consistency. Allow batch to soak 30 mins. Apply two evenly-distributed THOROSEAL FOUNDATION COATING applications, a minimum of 2# for each application or a total of 4# to each square yard. Care to be exercised to assure complete sealing of the surface down to and including the footer, forming 1½" cove at junction of walls and footer.

poured concrete or as parging coat

Prepare wall and mix same as above. Cut tie wires back at least ¾" and plug with WATERPLUG before applying THOROSEAL FOUNDATION COATING. Apply one heavy coat of THOROSEAL FOUNDATION COATING at the rate of 2# per square yard on poured concrete.

For parging coat (trowel applications), apply THOROSEAL FOUNDATION COATING ¼" to ½" thick.

50 lb. sack—add 25 lbs. clean washed sand.
60 lb. drum—add 30 lbs. clean washed sand.

coverage

50 lb. sack @ 2#/square yard—225 square feet.
60 lb. drum @ 2#/square yard—270 square feet.

packaging

50#—4-ply sack, 60#—steel drum.

tests

Compressive strength in pounds, per square inch—6225 lbs., in 7 days.

Absorption by boil method—3.9%.
Percentage of loss by boiling—0.42%.

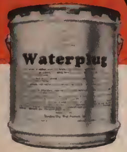
The above is Pittsburgh Testing Laboratory test No. 452971, March 10, 1954.

Passed Head Pressure Test—Washington Testing and Engineering Service.

Housing Development—Ann Arbor, Michigan
Contractor: Aires Construction Company
Materials Used: Exterior—2 coats THOROSEAL Foundation Coating
Interior—White THOROSEAL

Franklin Hills Homes—New Brunswick, N. Y.
Contractor Lyn Homes Inc.
Note how shale prevents drainage causing severe water problem.
Materials Used—2 coats THOROSEAL Foundation Coating.

WATERPLUG quick-set hydraulic compound



WATERPLUG is a quick-set hydraulic compound, applied to streams of running water or seepage through masonry walls and floors; stops the flow of water immediately. Packaged in dry powder form, WATERPLUG requires only the addition of water to make ready for use. WATERPLUG contains no metallics, will not shrink or oxidize and provides user with sealed surface for a period equal to the life of the structure to which it is applied. WATERPLUG sets in three to five minutes, according to temperatures of water with which it is mixed, or surfaces to which it is applied. Working in extremely low temperatures or when material is thoroughly chilled will retard set. WATERPLUG is a perfect hydraulic material and becomes harder and more resistant when subjected to constant water pressure.

Stopping water running or seeping through cracks in basement walls, elevator pits, sewers, cisterns, tanks, all rooms below grade, subjected to water pressure. Sealing crack at junction of floor and wall which is a major source of trouble. Sealing construction faults, such as holes left by tie wires, wood or steel separators. Wherever pipes, anchor bolts or other metal fixtures are to be grouted in masonry. In wells, mines, cofferdam work, sealing around pipe, conduit openings and tunnels; any place where presence of water is undesired. Because of its nonshrink and nonoxidizing qualities, WATERPLUG is ideal for setting dowels, anchor bolts and ornamental iron.

advantages

- stops running water instantly.
- nonshrink—expands as it sets.
- nonmetallic—will not rust out and deteriorate.
- fast set—3 to 5 minutes.
- will set up under water.
- exceptional structural strength.
- durable—equal to the life of the structure to which it is applied.
- easily applied—requires no special equipment or skill.
- does not contain toxic ingredients.
- anchors bolts and fixtures firmly.

application

Mix WATERPLUG to consistency of putty, using clean mixing water only. Mix only enough WATERPLUG that can be placed in 3 minutes. WATERPLUG should be in place without excessive working or rubbing. WATERPLUG cannot be brushed or troweled over surface of crack to seal it. The crack or opening must be first prepared by cutting to a minimum depth and width of ¾″. WATERPLUG must be forced into crack for proper results and kept damp for at least 15 minutes.

to seal crack at junction of floor and wall

Cut out crack at least ¾″ wide and deep, cutting back into wall slightly. Flush away all cuttings and dirt. Force WATERPLUG into prepared crack with a round tool and smooth out. Form cove at junction.

to stop streams of running water

Cut out crack or hole to a minimum depth and width of ¾″. Start at the top and force WATERPLUG into crack. At points of greater pressure, do not place WATERPLUG into opening immediately. Hold in hand or trowel until slight warmth or drying occurs. Then press WATERPLUG firmly into opening; exert full pressure. Do not remove trowel or hand too soon. After stopping active water, cut off patch even with surrounding wall surfaces.

to anchor bolts or metal fixtures

Drill hole large enough to have at least ½″ space left around bolt or fixture. Fill with WATERPLUG and firmly pack. Be sure to fill all parts of the hole. Force post or fixture into hole filled with WATERPLUG and tamp firmly. Keep moist for 15 minutes and do not apply excessive pressure for several hours.

coverage

One pound WATERPLUG will fill 17 cubic inches.

One pound WATERPLUG will fill a crack approx. 3′ long by ¾″ wide and deep.

packaging

1½# can—1 pint, 3# can—1 quart, 12# can—1 gallon, 60# drum—5 gallons.

tests

The following are test results compiled by the Pittsburgh Testing Laboratory, Pittsburgh, Pa.

thermal expansion

A specimen of WATERPLUG, approximately 8″ long x ½″ square, was prepared by mixing chilled WATERPLUG cement and water and molding in a form. This plug was used for a determination of the coefficient of thermal expansion.

The expansion was determined using a quartz tube dilatometer thermal expansion apparatus heated in a manually controlled well insulated cylindrical electric furnace similar in design to that used by the National Bureau of Standards.

results

The coefficient of thermal expansion in inches per inch per degree Fahrenheit from room temperature (77° F) to 200° F was 0.0000079.

Waterplug was tested for tensile and compression tests after mixing same with 23% of water by weight. The mixture was then poured into briquette and cube molds. Specimens were removed from molds 10 minutes after molding and cured in air at room temperature, 72° F; three of each were tested at 20 minutes, 1 day, 3 days, 7 days and 28 days, for tensile and compressive strengths, with results as follows:

tensile strength (pounds per sq. inch)

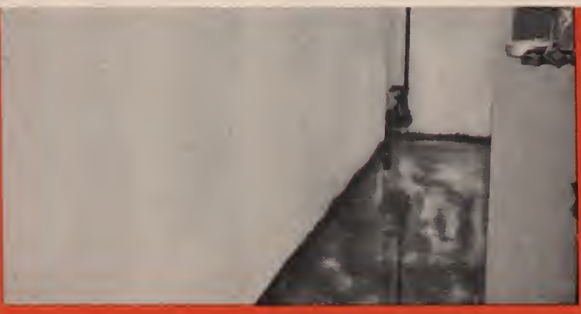
time	20 min.	1 day	3 days	7 days	28 days
tensile strength	149	253	260	290	335
	157	243	265	305	356
	160	251	270	288	362
average	155	249	265	291	351

compressive strength for 2″ cubes (pounds per sq. inch)

time	20 min.	1 day	3 days	7 days	28 days
compressive strength	1250	3000	3800	4000	6075
	1200	2850	3550	4150	6225
	1300	2900	3750	4100	6375
average	1250	2917	3700	4083	6225

Leak in concrete sewer in Indianapolis, Indiana. Square and Marra Construction Company writes

" . . . was permanently repaired with WATERPLUG . . . section passed inspection with high rating."



Major source of water trouble in all basements is at junction of floor and wall. WATERPLUG eliminates this source of trouble.

THORITE nonshrink patching mortar

THORITE is a fast-setting mortar, specially prepared for patching and filling blistered concrete, where reinforcing rods are exposed and corroded. No forms are necessary. THORITE does not contain metallics, waxes, tars or emulsions of any type. Its nonshrink qualities, plus freedom from oxidation, make possible years of carefree maintenance.

uses

Patching and filling blistered concrete where reinforcing rods are exposed and corroded, in heavy mass structures. Cornices, sills, lintels, belt courses, grain elevators, highway bridges, railroad bridges and underpasses, dams, reservoirs, water-treating tanks, filtration plants, cracks in masonry buildings of all types. Defective surfaces of old masonry where concrete has disintegrated and brick masonry has become soft and porous; new face can be brought level, with THORITE. Cracked and broken stucco of all types can be patched, filled and sealed with THORITE patching mortar and given a coat of THOROSEAL wall coating and made like new.

advantages

- prepared ready to use; no guessing in mixing.
- does not contain waxes, metallics, tars or emulsions of any type.
- nonshrink qualities and freedom from oxidation makes a real durable patch.
- workman can complete work in one operation.
- saves labor, forming, excessive scaffolding.
- does not slump from edge of patch.
- high structural strength.

application

to patch spalled concrete

Loose concrete and rust on steel rods should be removed by sandblasting, chisel and hammer or wire brush. Heavy particles of concrete should be removed by air or electric hammer. Wash clean with water from hose before filling with THORITE.

When patch has been prepared as outlined, apply THORITE by brush, mixed to batter consistency, over reinforcing rods and concrete within patching area, slushing mix under rods between steel rods and old concrete surface. Steel bars, mesh, pipes or other previously-embedded steel should be thoroughly covered and slushed with brush coat before filling patch with heavier THORITE mortar mix by trowel.

THORITE is a fast-setting mortar, which must be in place and leveled within five to ten minutes after mixing water is added. No forms are necessary. Just apply in successive ½" to 1" layers. Scratch first layer, cool with water and apply second layer within fifteen or twenty minutes. If patch gets hot and turns light gray color, cool by wetting. Keep patch damp 20 to 30 minutes after filling to complete curing. Several patches may be made during one stage of scaffolding and work completed without comeback or additional moving.

Apply coat of THOROSEAL wall coating over THORITE immediately after completion of patch.

to patch floors

Edge of disintegrated surface to be patched should be cut or chiseled at right angle with surrounding surface or undercut, if possible. Thoroughly clean area, removing all loose particles.

Dampen surface and apply heavy brush or slush coat of THORITE, making sure all pores and voids are filled. Follow this application with trowel coat of THORITE, forcing material against edge of patch all the way around, and working toward the center. This will prevent an airlock from taking place.

If area to be patched is greater than 1" in depth, material should be applied in 1" layers, scratched and then applied in successive 1" coats until patch is entirely filled. Dampen first application with water before making second application, etc. Screed off and steel trowel THORITE patch to level of floor.

After material has sufficiently hardened so that it is not soft or tacky, place either burlap bags or construction paper over patched area. If burlap is used, saturate with clean water and keep wet for forty-five minutes to one hour. This facilitates perfect curing. Light traffic can be used over patched area after one hour has elapsed, but the longer you give it to cure the better.

coverage

1# fills 17 cubic inches.

packaging

3# can—1 quart, 12# can—1 gallon, 60# steel drum.

tests

The following data is result of tests conducted by Pittsburgh Testing Laboratory, Pittsburgh, Pa.

	strength at various times				
	1 hr.	24 hrs.	3 days	7 days	28 days
compression, p.s.i.	750	1225	2188	3975	6475
tensile, p.s.i.	165	190	315	390	515
expansion		0.0285% (Autoclave Test)			

Abrasive Products—Braintree, Massachusetts
"Before" . . . Workman cleaning out all loose, deteriorated concrete and removing rust from steel rods, preparing surface for application of THORITE Patching Mortar and THOROSEAL.

"After" . . . Finished surface after all areas have been cleaned and patched with THORITE Patching Mortar and given coat of of THOROSEAL.

D-J MORTAR grouting mortar

A special mortar for grouting and sealing porous mortar joints on smooth-type brick or tile walls. Material is scrubbed into joints and over brick or tile and then wiped off, leaving cracks in joints and brick and tile sealed; retains normal brick or tile appearance.

uses

On smooth face brick construction where faulty mortar joints are evident and in need of repair.

On mortar joints of glazed or unglazed tile construction.

On mortar joints of smooth floor brick or floor tile.

As a grout, when textured brick have been taped.

Note: D-J Grouting Mortar must be used on recessed joints only.

advantages

- nonshrink.
- higher structural strength and greater durability than ordinary mortar.
- packaged ready for use; nothing to add but water.
- easy to apply. Permits complete filling and sealing of all defects in masonry or mortar without costly cutting out and tuck pointing.
- nonmetallic—No oxidation—No unsightly stains.

application

Mix in clean drum or steel mortar box, as requirements demand. Dump bag or drum of D-J Grouting Mortar into mixing container, round out in center and gradually add enough mixing water to bring to consistency of thick batter, by stirring or paddling. Allow material to soak in container for thirty minutes, to fatten mix. Use clean mixing water. Do not use any other ingredients; only water. Enough D-J Grouting Mortar may be mixed at one time to last two hours; can be tempered during these two hours. Mix thoroughly just before using. Retemper if necessary.

Wash surface of masonry with strong pressure of water from hose, removing all dust and dirt accumulation from joints and surface of brick. Dampen surface before application of material but do not have free water running over surface.

Apply D-J Grouting Mortar with 6" or 7" coarse-fibered calcimine brush or painters' scrub brush. Scrub joints briskly, tracing joints as much as possible so as to rub small shrinkage cracks full of material, rubbing as much material as possible off face of brick into joints and cracks. A second workman will follow scrubbing operation with damp flat sponge or flattened burlap; sponge or burlap should be damp, not wet, and rinsed frequently in clean water during this operation. Wiping should follow scrubbing while mortar is fresh, to remove excess from face of brick.

coverage

200—400 square feet per 50# depending on depth of joint.

packaging

12# can—1 gallon, 50# four-ply paper bag, 60# steel drum.

tests

The following data is result of shrinkage and expansion tests performed by Pittsburgh Testing Laboratory, Pittsburgh, Pa. There was no shrinkage.

% expansion at various times

24 hrs.	48 hrs.	3 days	7 days	14 days	21 days	28 days
.014	.016	.018	.027	.035	.040	.044

Vapors from processing malt caused extensive disintegration of joints in ceramic tile wall, providing voids for growth of bacteria.

After preparing wall, D. J. GROUTING MORTAR is applied over entire wall surface.

While mortar is still damp, excess mortar is wiped from face of tile with synthetic sponge.

Finished wall. All joints have been completely filled and sealed. This D. J. MORTAR job has lasted 3 times longer than previous repair jobs using other materials, and is still in excellent condition.

DRYJOINT pointing mortar

A quality material for repointing all types of masonry, nonstaining for limestone, sandstone, etc. Prevents penetration of water, speeds placement and provides greater strength. Standard Gray or White and colors furnished upon request to match masonry.

uses

For tuck pointing of brick, stone, tile, terra cotta, or other types of masonry.

advantages

- nonshrink, does not pull away from brick, etc.
- high structural strength.
- a cementitious material, compatible with all masonry.
- nonmetallic, does not rust out, will not discolor wall.
- beautifies—preserves—prevents damage from water leakage.
- speedy placement, can be applied by caulking gun.
- hardest mortar manufactured without shrinkage.
- cuts labor costs, extreme durability eliminates future maintenance.
- available in colors to match masonry.

application

All old, loose mortar joints shall be thoroughly cut out to the full depth of the loose material. Joints shall then be flushed clean of loose material by water from hose, or blown clean by compressed air. DRYJOINT should be mixed with clean water only, on a small mortar board or in mortar tub. Mix to consistency of stiff mortar; allow batch to set 15-20 minutes and retemper for placement. Dampen joints slightly before making application, making sure there is no free water. DRYJOINT can be tempered up to 2 hours. A Calbar #45-A pressure gun having a 14" aluminum barrel and cap, with a #3, #4, #5, #6, #8 and #9 nozzle or similar model of other manufacture can be used for faster placement on large work.

coverage

1 lb. fills 17 cubic inches.

packaging

12# can—1 gallon, 50# four-ply paper bag, 60# steel drum.

tests

The following data is result of shrinkage and expansion tests performed by Pittsburgh Testing Laboratory, Pittsburgh, Pa. There was no shrinkage.

% expansion at various times

24 hrs.	48 hrs.	3 days	7 days	14 days	21 days	28 days
.018	.020	.024	.030	.034	.038	.042

THOROCLEAR SPECIAL silicone water emulsion

THOROCLEAR SPECIAL is a high quality silicone product prepared especially for most limestones, concrete and porous type stone. THOROCLEAR SPECIAL is invisible. Its water repellent qualities prevent penetration of moisture into the surface. To be applied on dampened surface.

uses

Most limestones, concrete, concrete highways, bridge abutments, concrete bridge decks, concrete driveways, concrete sidewalks, interior plaster.

advantages

- can be applied to damp surface.
- prevents darkening of "wet" concrete when applied to highways, thus providing greater visibility at night.
- increases durability since water absorption is reduced; thereby reducing freeze damage.
- one-coat application.
- THOROCLEAR SPECIAL actually doubles the life of Portland cement concrete.
- allows wall to breathe.

application

Preferred application is by pressure sprays of 20 to 30 p.s.i. Spray heads should be adjusted to give uniform coverage with a minimum of fogging or misting. The use of aluminum equipment should be avoided because of the caustic nature. THOROCLEAR SPECIAL should be flooded on the surface to the point of maximum absorption. No attempt to respray a treated area should be made since, after drying starts, the material will repel itself. Application by brushing is satisfactory if care is taken to apply a liberal enough coat to meet the recommended coverage rate which is approximately 0.1 gallon per square yard. Surface should be dampened before application, but no free water present. All loose and foreign material must be cleaned from surface. Caution: after limestone or other stones are sandblasted, the loose stone dust must be washed from the surface before applying THOROCLEAR SPECIAL.

Slight darkening might occur on some limestones which contain slate or iron. Make a test panel if surface is doubtful.

coverage

THOROCLEAR SPECIAL will treat approximately 100 to 400 square feet per gallon, varying in accordance to porosity and density of surface being treated.

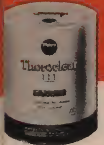
packaging

1 gallon—5 gallon—55 gallon drum.

tests

Penetration Test on concrete and limestone—1/16" to 1/4".

Freeze and Thaw Test—Specimens prepared from non-air-entrained cement and not treated with THOROCLEAR SPECIAL failed completely by disintegration with 35-40 cycles. THOROCLEAR SPECIAL treated specimens based on non-air-entrained cement showed only slight surface scaling in 70-90 cycles. Tests also show high resistance to the effects of salt when surface treated with THOROCLEAR SPECIAL. On limestone, water absorption was reduced from 10% to less than 1% with only one application of THOROCLEAR SPECIAL.



THOROCLEAR 777 5% (plus) silicone transparent sealer

THOROCLEAR 777 is a new and invisible silicone water repellent for all types of above-grade, unglazed masonry surfaces. THOROCLEAR 777 contains a completely new silicone resin. THOROCLEAR 777 properly applied has shown, in accelerated tests, good water repellency for 8 to 10 years.

uses

Brick, concrete, cement plaster, stucco, artificial stone, field stone, terra cotta trim, clay tile, cement paint, asbestos shingles and asbestos siding or any porous masonry materials. Not to be used on lightweight masonry units.

advantages

- formulated to furnish deep penetration.
- keeps surface clean.
- unaffected by surface abrasion or high and low temperatures.
- completely invisible.
- renders water repellency for years.
- minimizes efflorescence.
- allows surface to breathe thereby eliminating one of the major causes of spalling and disintegration.
- retains natural beauty of masonry to which it is applied.

application

THOROCLEAR 777 is prepared ready for application with fine hair-bristle paint brush, power or garden spray. Low-pressure spray gun is recommended. Mixing or stirring is not necessary. THOROCLEAR 777 must be applied to dry masonry surfaces which are free from dirt, loose mortar and efflorescence. To obtain best results, surface should be flooded. THOROCLEAR 777 should be applied in sufficient quantity to permit a rundown of 6-12 inches. It is applied to sound, clean masonry. If cracks, holes, loose mortar joints or other open defects appear in surface, they should be pointed or filled before applying THOROCLEAR 777, which is a thin liquid and not intended to fill cracks or holes. THOROCLEAR 777 should not be applied if it has rained on surface to be treated in past 3 or 4 days, or if rain is anticipated within two hours after application. THOROCLEAR 777, brushed or sprayed on glass, should be removed by using lacquer thinner, naphtha, or Solvesso 100. This cleaning should be done within one hour after application.

coverage

THOROCLEAR 777 will treat approximately 75 to 200 square feet per gallon, varying in accordance to porosity and density of surface being treated.

packaging

1 gallon can—5 gallon drum—55 gallon drum.

tests

The following are results of evaluation tests made according to Interim Federal Specifications SS-W-00110, Revision 1, 10 December 1954 by Foster D. Snell, Inc., Consulting Chemists and Engineers.

test & number	requirements	results	evaluation
non-volatile content #4.2	5% min.	6.77%	passes
silicone content, #4.3	5% min.	6.58%	passes
water repellence, #4.4.1.4	1% max.	0.52%	passes
weathering, #4.4.2	1% max.	0.53%	passes
breathing, #4.4.3	50% min.	50.3%	passes
resistance to efflorescence #4.4.4	none visible	none visible	passes

Westminster Presbyterian Church, Pasadena, California

Exterior stone walls waterproofed with THOROCLEAR 777 after 75% of joints were cut out and filled with DRYJOINT. Spalled concrete was patched with THORITE.

Contractor: Henry L. Lewallen Co., Burbank, California.

St. Andrew's Seminary, Rochester, New York

All exterior brick work waterproofed with two applications of THOROCLEAR 777 after joints of brick work were grouted with D-J GROUTING MORTAR.

Contractor: Genesee Building & Waterproofing Co., Inc., Rochester, New York.

General Railway Signal Co., Rochester, New York

All exterior brick work waterproofed with THOROCLEAR 777 after it was repaired and restored by proper use of DRYJOINT, D-J GROUTING MORTAR, THOROBOND, THORITE, THOROSEAL and THOROSHEEN.

Presbyterian Church and Institute, Rochester, New York

All exterior brick work waterproofed with two applications of THOROCLEAR 777 after buildings were thoroughly cleaned.

THOROSPAN a polysulfide based sealant

THOROSPAN is a new polysulfide-based sealant designed to seal joints where expansion and contraction are important factors. This synthetic rubber-base compound (Thiokol) bonds tenaciously to a wide variety of building materials, flexes without fatigue and is impervious to weather and most chemicals.

uses

Control joints in block construction, joint between concrete slab and building, curtain wall construction, for sealing glass to metal, metal to metal mullions, door jambs, metal sash to masonry surfaces, copings, flashings, expansion joints, stone to stone, pipe joints, underwater joints, moving joints where expansion and contraction are factors.

advantages

- Expands and contracts without fatigue. Eases back to normal on relief of stress or pressure.
- Compresses to ½ normal size with no loss of bond.
- Expands to 2 times normal size without disturbing bond.
- Multi-Bonding. THOROSPAN bonds to a notable variety of building materials of very different textures and coefficients of thermal dimensional changes.
- Adaptable to most types of construction.
- Serviceable over a wide temperature range.

application

Use THOROSPAN Primer for all surfaces under water or continuously moist (except glass or glazed surfaces) and for all porous surfaces including concrete, block, brick, marble, limestone and granite.

A clean, dry surface is of prime importance. Remove all oils, grease, putty, form release agents, asphalts, wax, coatings, paint and waterproofing. If oil has been absorbed into the pores of the concrete, enough concrete must be removed to insure a clean surface. Fresh concrete must be completely cured. THOROSPAN should never be applied to wet, frosted or dirty surfaces. Aluminum surfaces that have a protective film must be wiped clean with acetone or ketone. It is suggested that the edges of the joints be taped.

mixing

THOROSPAN should be mixed only when ready to use, and just enough prepared for working life as specified below. Note: It should never be applied at temperatures below 50°F.

Top can holds catalyst; bottom can, synthetic rubber base compound; trade name "Thiokol" liquid polymer. This polysulfide sealant cures to a tough, pliable rubber at room temperatures.

Catalyst should be poured into large container holding the base compound. Can be stirred by hand or power, with a flat paddle (about 7-10 minutes). If power mixing, speed should be limited to 80 RPM to avoid mixing air into compound or generating heat, which limits working life. To distribute catalyst evenly, sides, bottom and paddle should be scraped regularly. Do not use paint shaker. Do not add oils or thinners to THOROSPAN. (For excess cured material, use sharp-edged tool or sander; toluene removes excess uncured material.)

THOROSPAN can be applied by hand-calking guns and pressure application systems. Same advantages have been derived by the use of polyethylene liners in calking guns, since the cured polysulfide sealants do not adhere to polyethylene.

coverage per kit (approximately gallon) — approximately 60 linear feet ½" x ½".

packaging

Small kit (approx. 1 qt.). Regular kit (approx. 1 gal.).

properties

Working life: 6 hours at 55°F, 2 hours at 70°F, 1 hour at 90°F. Tensile Strength over 475 psi. Elongation before break, over 450%. Shore A Hardness—48. Shrinkage in cure under 2%. Cure time (tack free) overnight at 70°F. Temperature range . . . –65 to +250°F.

Normal precautions, such as washing the compound from the hands before smoking or eating, should be observed. Avoid ingestions, prolonged contact with the skin and open breaks in the skin.

immersion test	***condition***
Mineral Oil	OK
Xylene	OK
Carbon Tetrachloride	OK
100 Octane Gasoline	OK
ASTM Oil No. 1 & 3	OK
Motor oil	OK
Diesel oil	OK
10% acetic acid	OK
Vegetable oils, such as corn, linseed, castor, pine	OK
Alcohols, such as ethyl, butyl, isopropyl, glycol	OK
10% sulfuric acid	OK
3% - 36% sodium chloride solution	OK

Curtain Walls—THOROSPAN solves problems of strain, shock and movement in curtain wall units. The flexible, waterproof seal is practical, handsome and long-lived.

Expansion joints; flashing, coping and footing joints; joints in concrete conduit; underwater joints in swimming pools; THOROSPAN long lived bond resists erosion of water, salts or chemicals.

THOROBOND bonding agent for plaster—concrete

THOROBOND is a liquid material that will bond all types of gypsum plaster and Portland cement to any structurally-sound surface.

uses

Over old plaster or concrete surface before applying a new surface.

Bonding new cement topping to old concrete floor.

Bonding new plaster to slick surfaces of concrete beams, columns, floor and ceiling slabs and all other architectural concrete.

Welding plaster to wallboard and all types of wood or fiber. Bonding mortar bed for tiled bathroom walls and floors to old surface. Can also be mixed into tile grout.

Bonding plaster, cement topping, concrete, to painted surfaces (provided paint is not water soluble type).

You can be sure of a thorough job if THOROBOND has been applied over the old surface before plastering.

advantages

- eliminates need for roughening or chipping in resurfacing existing concrete.
- nonflammable.
- saves labor, money and time.
- withstands temperatures from 40°F to 300°F.
- non-deteriorating and inert.
- not affected by alkalinity of lime plaster and Portland cement.
- retains its plasticity; never becomes brittle.
- has high tensile strength (600 p.s.i.) and shear strength.
- can be applied over damp or dry surface.

application

Apply by paint brush, mechanical spray or garden spray in continuous film over surface to which gypsum plaster, cement topping, wall or floor tile, or other type material is to be bonded to structurally-sound surface. Do not apply THOROBOND to questionable surface. If surface is dusting, sandy or peeling, clean thoroughly by removing dirt, oil, grease, detergents, water-soluble paints, glue, size, etc., before using. If surface is questionable, apply test patch of THOROBOND. After drying 30 to 40 minutes, check patch for peeling, curling or signs that indicate it has not adhered properly. THOROBOND must have a sound clean surface for perfect bonding.

Allow 45 to 50 minutes for THOROBOND to cure before applying cement, lime plaster or other materials containing moisture, although these types of materials may be applied over THOROBOND at any time; a day or month after application. If THOROBOND has cured for several days after application, it may be necessary to dampen slightly with brush when applying plaster or cement over THOROBOND.

For Spraying: THOROBOND can be applied with commercial spray equipment which will deliver between 35-45 p.s.i. through nozzle that will displace 6-8 c.f.m., regular paint brush or with regular garden spray.

NOTE: When bonding acoustical plaster, make sure brown coat has completely dried out.

When applying lime putty finish over THOROBOND, increase gauging to permit plaster set.

To improve bonding qualities of THOROSEAL or slick surfaces, one quart of THOROBOND can be added to each gallon of clean mixing water.

THOROBOND is not a waterproofing material and should not be applied where constant water pressure is present.

coverage

THOROBOND will cover approximately 100 to 400 square feet per gallon, depending on porosity and texture of surface to be coated.

packaging

Quarts, Gallons, 5 Gallons, 55 Gallons.

tests

The following tensile tests were conducted by the Pittsburgh Testing Laboratory, Pittsburgh, Pa. in order to check the effectiveness and suitability of THOROBOND as a bonding agent in applying various types of plaster on smooth wall and ceiling surfaces. THOROBOND is approved by the Board of Standards and Appeals for use in New York City under Cal. No. 721-56-SM.

briquettes used in tests		halves of briquettes cemented together with THOROBOND		Various plasters molded to 28 day old half briquettes of neat cement with THOROBOND as a bonding material.	
material	average p.s.i.	average p.s.i.	remarks	average p.s.i.	remarks
neat cement	553	560	failed in cement	not tested	
Ottawa sand mortar, 1:3	443	469	failed in mortar	not tested	
local river sand mortar, 1:3	491	485	failed in mortar	not tested	
brown coat (gypsum), 1:3	70	77	failed in plaster	172	failed in plaster
acoustical plaster	72	72	failed in plaster	87	failed in plaster
perlite plaster, 1:3	136	146	failed in plaster	195	failed in plaster
finish plaster	225	243	failed in plaster	132	failed in plaster

Workman spraying THOROBOND on slick reinforced concrete surfaces of South Florida State Hospital—Broward County, Florida, prior to application of THOROSEAL over entire structure.

Workman applying THOROBOND to a previously painted surface prior to applying THOROSEAL.

THOROPATCH masonry patching material

THOROPATCH is a new concrete and acrylic polymer patching material for resurfacing and leveling concrete floors, repairing concrete steps, etc. The dry mix ingredient is a perfect blend of the finest aggregates to produce strong, durable concrete patches. The liquid ingredient adds the adhesive and acid resistant qualities of acrylic emulsion—the base ingredient of tough "Plexiglas." THOROPATCH is suitable for both exterior and interior applications.

uses

For resurfacing and leveling concrete floors, for patching concrete stairs and walks, concrete driveways, concrete ramps, etc.

advantages

- Faster repairs
- Can be feather edged
- Ease of application, smooth troweling
- Dries to a natural concrete color
- Highest compressive strength in its field
- No crusting—curing is complete throughout
- Excellent resistance to most industrial acids

application

Prepare a good clean surface. Remove all loose material and disintegrated concrete; clean off all oils, greases, dirt, salt deposits, etc. Do not use THOROPATCH over wooden floors, asphalt or surfaces that are painted, frozen or structurally unsound. For patching where active water is present, use WATERPLUG.

Stir the liquid ingredient before adding it to the dry mix to insure homogeneity. Use clean mixing container. Put THOROPATCH dry mix in first, then add liquid as it comes from the can. Slowly stir, intermixing to mortar consistency. Do not overstir. It is not necessary to add any aggregates to THOROPATCH. (Due to climatic conditions, consistency of mix may vary. It is recommended, if mix is too dry, water may be added 1 ounce at a time until proper mortar consistency is reached.)

For deep patches, use only about ¾ of the liquid; this makes a stiff mix—the right consistency for deep patches or holes.

Dampen cleaned surface, but do not leave standing water. Apply a slurry coat of THOROPATCH by brush. Then trowel on THOROPATCH. Do not overtrowel. May be troweled in layers from 1/16" to 2". Place THOROPATCH as quickly as possible.

Do not apply THOROPATCH at temperatures below 40°F, or when the temperature is expected to fall below 40°F within 48 hours. Do not let THOROPATCH freeze in can or patch.

THOROPATCH is normally self curing. Do not use any curing compounds. When drying is rapid due to high temperatures, rapid air movement or substrate porosity, covering the THOROPATCH surface with wet burlap will be helpful.

In 24-48 hours after application, a THOROPATCHed floor may be given normal use. For heavy traffic areas a 4-day curing period is required.

coverage

1#—17 cu. in.

packaging

8#—20#—40# metal containers.

tests

Tensile Strength, PSI	1055
Compressive Strength, PSI	5225
Flexural Strength, PSI	1885
Density	1.9

IMMERSION TEST

H_2SO_4, 10%	A–
Ca $(OH)_2$, 10%	A
NaOH, 10%	A
Citric acid, 10%	A–
Lactic acid, 10%	A
Gasoline	A
Xylene	A
Methyl ethyl ketone	A
Trichloroethylene	A–
SAE #30 Motor oil	A

RATING SCALE

A	Intact; unaffected
A–	Intact; abrades slightly
B	Intact; abrades readily
B–	Intact; abrades severely

(Scale runs to F–, which indicates complete disintegration)

ACRYL 60

Acryl 60 is specially formulated acrylic polymer designed for use with Portland cement mixes to improve mechanical properties and adhesion to old concrete surfaces. Cement mixes prepared with Acryl 60 are suitable for exterior or interior use, are hard, tough, fast-curing and have good adhesion to a variety of surfaces.

uses

With 1-3 concrete mixes, add 1 gallon of Acryl 60 to a 45# bag of packaged sand mix. Add 1 gallon of Acryl 60 to an 80# bag of packaged gravel mix.

application

Prepare a good clean surface for tough bond: remove all loose material and disintegrated concrete; remove all traces of oil, grease, etc. Sweep or blow out with air. Dampen area but do not leave standing water.

When mixing, use a clean container. Stir Acryl 60 liquid before using. Put concrete mix into container first, then add liquid and stir slowly. (On hot days it might be necessary to add a slight amount of water to make the mix workable.)

Brush on a slurry coat of mix to eliminate air pockets. Then place mix into area to be repaired. Place quickly. Weather conditions may cause setting time to vary. Mix should be placed as quickly as possible. Maximum time recommended for placement, not to exceed 20 minutes.

Trowel mix into place. Do not over trowel. The less troweling the better.

When drying is rapid due to high temperatures, rapid air movement, etc., covering surface with wet burlap will be helpful. In 24-48 hours after application, the area may be given normal use. For heavy traffic areas, a 4-day curing period is required.

packaging

Quarts, gallons, 5-gallon drums.

THOROSET METALLIC FLOOR HARDENER

THOROSET Metallic Floor Hardener consists of specially graded water absorbent oxidizable iron aggregates and cement dispersing agents. It is free of oil or non-ferrous metals. THOROSET Metallic Floor Hardener, upon application, is incorporated integrally into the cementitious surface where it oxidizes and expands to produce a hard, wear-resistant, ductile finish.

use

For hardening and coloring (if color is desired) of concrete floors and toppings during installation.

advantages

- Hardens concrete floors.
- Renders concrete floor resistant to absorption of grease, oils, alkalis and most chemicals.
- Complies with specifications of U. S. Army Corps of Engineers, U. S. Navy Dept. Bureau of Yards and Docks F 4 A, Bureau of Mines, Public Building Administration, Veterans Administration.

THOROSET METALLIC FLOOR HARDENER is applied during installation of concrete floors as follows:

1. Prepare dry mixture by weight:
   2 parts THOROSET METALLIC FLOOR HARDENER
   1 part Portland Cement.
   Mix thoroughly until uniform in color.
2. For each 100 sq. ft. of surface, the following amount of dry mixture described above shall be used:

Average traffic	45 lbs per 100 sq. ft.
Medium heavy traffic	60 lbs per 100 sq. ft.
Heavy traffic	75 lbs per 100 sq. ft.
Extra heavy traffic and for increasing electrical conductivity	135 to 180 lbs per 100 sq. ft.

3. After concrete has been screeded, tamped and floated and the surface water glaze has disappeared, apply the above mixture. The dry mixture is best applied in two separate dust-on coats of equal parts. Do not steel trowel first ½ dust coat, only float and as soon as water glaze again disappears, dust on second ½ dust coat. Allow to absorb water, float and, when sufficiently set, steel trowel lightly.
4. Allow to cure, using a resin-base curing compound for natural THOROSET METALLIC FLOOR HARDENER or colored liquid wax where Colored Metallic Hardener is used.

coverage

Note: the following amounts are for THOROSET METALLIC HARDENER only; it must be mixed with Portland cement before it can be applied to floor, see paragraphs (1) and (2) above.

Average traffic	30 lbs per 100 sq. ft.
Medium heavy traffic	40 lbs per 100 sq. ft.
Heavy traffic	50 lbs per 100 sq. ft.
Extra heavy and increased electrical conductivity	90 to 120 lbs per 100 sq. ft.

packaging

100 pound bags or 100 pound drums.

THOROSET METALLIC GROUTING COMPOUND

THOROSET Metallic Grouting Compound is a finely divided and graded mixture of active iron powders, cementitious binders, acceleration promoters and cement dispersing and lime reactive plasticizing agents which increase workability.

use

When used as directed, THOROSET Metallic Grouting Compound produces a non-shrinking concrete or mortar of high compressive strength and maximum ductility. The presence of the plasticizing agents enable the grouting mix, with a low water-cement ratio, to flow around obstructions, e.g. bolts, shims etc., and fill in completely the space between the concrete foundation and the bedplate of the machine, assuring a more positive and solid load bearing surface.

advantages

- Produces a dimensionally stable concrete or mortar which retains its original volume without shrinking.
- Provides an ideal base for machinery and equipment of all types.
- Formulated to possess maximum workability while employing low water ratios.

application

new surfaces: Chip or scarify highly glazed or smooth trowelled surfaces. Etch with THOROCLEAN solution to open pores and remove all foreign matter. Flush with clean water and remove all traces and residue.

old surfaces: Cut out and remove all soft, cracked, oily or questionable concrete. Roughen base, etch with THOROCLEAN solution. Flush several times to assure good clean base.

After surface has been cleaned and prepared, soak area to be grouted for at least 4 to 5 hours. Remove excess water and apply slush or bond coat at rate of 25 to 30 lbs. of mixture per 100 sq. ft. Mix dry materials with water to produce an easy flowing mixture which should be scrubbed well into surface to be grouted. Do not allow it to dry or set before applying grouting mixture to suit requirements.

Provide forms to retain grout, and secure solidly to withstand pressure of mixture under working conditions. Use only enough water to produce a fairly stiff working consistency. Do not mix more grout than can be placed in 20 minutes.

Ram or tamp mixture in place to level and fill all voids.

Pour grout from one side to avoid excess air entrapment.

Cure exposed surfaces by keeping moist for at least 48 hrs.

coverage

Slush coat	25 to 30 pounds per 100 sq. ft.
Grouting	Mix where clearance is less than 1"—materials needed for 1 cubic yard: 1267 lbs. THOROSET Grouting Compound 12.6 sacks Portland Cement 12.6 cu. ft. sand Mix where clearance is more than 1"—materials needed for 1 cubic yard: 875 lbs. THOROSET Grouting Compound 8.7 sacks Portland Cement 8.7 cu. ft. sand 13.1 cu. ft. ¼" gravel or crushed stone.

packaging

100# Burlap sack (polyethylene liner)
100# Steel drum

P & W FLOOR HARDENER

A high quality concentrated chemical, formulated with laboratory exactness, packed for shipment in crystal form, to be dissolved in clean water.

uses

For hardening and dustproofing new concrete and terrazzo floors; on old concrete floors that are starting to dust; to densify concrete floor slabs subjected to moisture. Not recommended for colored concrete.

advantages

- requires no special equipment, brush or broom works fine.
- requires no special skill to do a good job.
- saves floor paint.
- dustproofs and densifies concrete and terrazzo floors.
- far greater penetration.
- packaged in crystal form, freight cost of water eliminated.
- far greater economy.
- makes floor more resistant to most mild corrosive solutions.
- meets all Federal Specifications and Standards.

application

Mix thoroughly in clean wooden or fiber containers. Allow 24 hours between each application. Floor surface should be clean and dry prior to application.

Approximately 2# of crystals are required for 3 coats on 100 square feet of concrete.
First application: 2# P & W to 4 gallons clean water.
Second application: 2# P & W to 2 gallons clean water.
Third application: 2# P & W to 1 gallon clean water

On each application mop or broom thoroughly over floor until all liquid has been absorbed into surface. After completion of final, or third, application, when surface has thoroughly dried, flush well with clean water.

packaging

8# container, 40# container, 375# barrel.

THOROCLEAN dry powder masonry cleaner

THOROCLEAN is a new dry-powder masonry cleaner designed for surfaces where muriatic acid was formerly used. THOROCLEAN offers safety and time-saving convenience.

uses

To clean brick surfaces, remove efflorescence, clean off dirt and grime, remove excess mortar, conditioning concrete prior to painting.

advantages

- Will not stain fire clay type face brick.
- Easy to use—just add water.
- Penetrates quickly without discoloration.
- Safer to handle.
- Saves 90% in valuable storage space.
- Eliminates hazards of broken bottles, spattering liquids, corrosive spillage or acid fumes.
- No container deposits—no returns.
- Acts better than muriatic acid on iron spot brick.

application

Cleaning masonry: For normal applications, dissolve 1 lb. of THOROCLEAN to 5 gallons of water. (Use this strength to clean dusting cement paint, too.) Stronger concentrations can be used where needed, especially for older deposits. For faster dissolving action, use warm water. Simply brush the solution on masonry surface with a stiff bristled brush. Chip or scrape off large pieces of mortar with a scraper. When clean, rinse off the acid and the dissolved or dislodged mortar.

Conditioning concrete for painting: Wash surface thoroughly to remove all dirt and grease. Heavy grease deposits should be scraped first; also scrape paint spots. Rinse well with clean water. After concrete has dried, dissolve ¾ lb. of THOROCLEAN to 1 gallon of water and spread solution with broom or brush. Allow to stand for 20-30 minutes, then rinse well with water.

packaging

1 lb. can, 10 lb. can, 50 lb. drum, 425 lb. drum.

take normal precautions when using THOROCLEAN

- In its dry form, THOROCLEAN is non-irritating to dry skin, and is easily removed by flushing with water. Of course, gloves and goggles should be worn when mixing or applying THOROCLEAN.
- In water solution, remember that THOROCLEAN should be handled with the same care as other strong acids.
- In either form, avoid contact with eyes, mucous membranes, skin, cuts in skin, or clothing. In case of contact, flush immediately with plenty of water for at least 15 minutes. Medical attention should be obtained in case of contact with the eyes.

QUICKSEAL cement base finish coat for masonry

QUICKSEAL—same base material as THOROSEAL, ground finer for finish coat, in many beautiful colors; can be applied as finish coat over THOROSEAL and most other types of cement-base material if surface is sound. Not to be used over paint or glazed surfaces. QUICKSEAL is prepared for coverage, beauty and durability. QUICKSEAL is easily applied by brush and will not wash away with a few hard rains. THOROSEAL and QUICKSEAL, properly applied, provide a sealed surface which will withstand hose test or hard rain.

uses

Sealing and beautifying interior and exterior masonry surfaces of home, garage, silos, schools, churches, masonry fences, etc.

QUICKSEAL may be applied over cement-base paint, provided surface is not glazed and if loose and foreign material is removed by wire brushing.

advantages

- applied by brush or power spray.
- whiter white, will not water spot.
- beautiful pastel colors.
- mineral ingredients assure long life; resistance to mildew, flaking and chalking.
- after cleaning loose and foreign material, QUICKSEAL may be applied over other cement-base paint.
- meets Federal Specification TT-P-21.

application

Dampen surface of masonry with clean water by brush or fog spray from hose before applying.

Be sure all free water is absorbed by wall before application of material to prevent blotching of tinted QUICKSEAL.

QUICKSEAL may be applied by paint, calcimine or Dutch brush, or power spray.

When two coats are used, apply first coat of QUICKSEAL with stiff fiber brush and scrub material into wall surface, which assures a complete sealing job. Second or finish coat may be applied by regular brush, assuring a smooth even surface.

Second coat should be applied between 12 to 36 hours after first coat to insure good bond between coats.

On following day, and for several days after application, fog spray finished surface to secure fine, pleasing results.

On rough and porous surfaces, a base coat of THOROSEAL is recommended.

for spraying

A DeVilbiss-type gun M.B.C. 54 head size E nozzle. ½" air line and 3/9 flush hose. (Binks manufactures a similar gun.)

coverage

Over THOROSEAL, on poured concrete, brick, concrete block 5# QUICKSEAL to approximately 100 sq. ft.

packaging

10# can—1 gallon, 50# steel drum.

VABAR vapor barrier and plaster bond

VABAR is a cement-base vapor barrier and plaster bond. VABAR seals the surface against penetration of water and provides a proper bond for gypsum or cement plaster.

uses

All interior masonry surfaces of exterior walls as a plaster bond and vapor barrier.

advantages

- prevents moisture from getting to interior plaster.
- will not ruin or damage workmen's clothes, hands or tools.
- causes no mess or obnoxious odors throughout building.
- cement base is compatible with the masonry and plaster.
- more durable than other types of plaster bond.

application

All interior masonry surfaces of exterior walls to be plastered shall be thoroughly cleaned, making sure all excess mortar projecting from wall surface is removed and necessary repointing done by mason contractor. After thorough preparation of surface, heavy brush coat of VABAR Plaster Bond shall be applied over all surfaces to be plastered, minimum of 3# VABAR Plaster Bond per square yard, or sufficient material used to completely fill and seal the surface. As application proceeds, surface shall be roughened by sweeping in vertical and horizontal sweeps with regular cut-off house broom or plasterer's scratching tool. Allow a curing period of several days. Mixing and application of VABAR shall be in accordance with printed specifications furnished by manufacturer. Do not use on ceilings or over gypsum or lime plaster.

coverage

3# per square yard.

packaging

12# can—1 gallon, 50# four-ply paper bag, 60# steel drum.

THOROSHEEN RW7
acrylic masonry paint

THOROSHEEN RW7 is a water-emulsion acrylic resin masonry paint, designed as a finish coat to be applied over THOROSEAL or as a color coat where texture of masonry is desired to be maintained. Although acrylic resin paint is an all-purpose surface coating, THOROSHEEN RW7 is formulated primarily as a masonry finish coat for color and beauty. The base of THOROSHEEN RW7 is chemically related to the well-known acrylic plastic widely used for aircraft and industrial glazing. THOROSHEEN RW7 is acid, alkali and mildew resistant, allows wall to "breathe" and can be applied to green plaster or cement surfaces.

uses

Interior—Classrooms, plaster and masonry walls of churches, factories, offices, homes, schools and wherever plaster or masonry requires interior decoration. THOROSHEEN RW7 is unexcelled for interior coloring of manufactured block, stone and stucco. Just apply on masonry surface without previous filling or base coats.

Exterior—THOROSHEEN RW7 is recommended as finish coat over a THOROSEALED surface, when making exterior applications on all types of masonry or stucco.

advantages

- the ideal masonry paint as it is unaffected by alkali.
- permits wall to breathe, thereby eliminating paint failure.
- excellent color retention.
- odor free—inside applications possible during working hours.
- dries in 30 minutes.
- nonflammable.
- can be water thinned.
- nontoxic.
- excellent scrubbing resistance.
- will not streak, lap, sag or run.
- long term toughness and flexibility.
- excellent adhesion to most surfaces.
- tools and brushes easily cleaned with water.

application

Clean or wire brush surface to remove dirt, grease, loose paint, efflorescence, etc. (Block or poured walls shall first be sealed with one coat of THOROSEAL, except where interior texture is to be maintained). Stir well, then apply as it comes from can. When thinning is necessary, thin with clean water; do not add more than one pint of water to each gallon. If masonry is hot or porous, dampen slightly with water. Do not apply when temperature is less than 50° F. Application tools should be wetted thoroughly before using. Wash tools immediately after use with soapy water. If two coats are desired, allow one hour before applying second coat.

For spraying: Spraco Gun Model 14C nozzle #N4AM or equivalent. Thinning slightly with water is necessary.

coverage

200—400 square feet per gallon, depending on porosity of surface.

packaging

Pints, quarts, gallons, 5 gallons, 55 gallon drums.

tests

THOROSHEEN RW7 was tested along with three competitive products, in accordance with Federal Specification TT-P-141b, by E. L. Conwell & Company, Philadelphia, Pa. The results were as follows:

test	method number	product A	product B	product C	THOROSHEEN RW7
wet hiding power per gallon	411.2	350 sq. ft.	350 sq. ft.	160 sq. ft.	350 sq. ft.
average tensile strength of cast film	425.1	470 p.s.i.	260 p.s.i.	nil	510 p.s.i.
water resistance, immersion 24 hrs.	601.1	excellent	excellent	excellent	good
heat resistance 210° F., 96 hrs.	605.1	yellows	yellows	cracking	excellent
adhesion to asbestos siding	617.1	very good	very good	poor	excellent
humidity test on asbestos siding 200 hrs.	620.1	excellent	very good	good	excellent

THOROLOK blue star brand rubber base floor paint

A high quality rubber base floor paint for maximum decoration and wear. Produced for thoroughly cured and dry concrete or masonry surfaces. Applied in two coats. Available in attractive colors.

uses

Floors, above or below grade; display or recreation rooms; motor rooms, kitchen or dining room cement floors.

advantages

- available in 6 attractive colors.
- durable.
- eliminates dusting and makes floor easier to keep clean.

application

New concrete floors, after curing fourteen to twenty-one days, should be given one coat of THOROLOK No. 100 Sealer, as shown on Color Card. Other shades should not be applied until cement floor has aged or cured two to three months to secure satisfactory, uniform shade. Always apply one coat of No. 100 Sealer over cement floors before other shades are used. Applications are made by brush or paint spray. For large applications a hair bristle floor brush can be used.

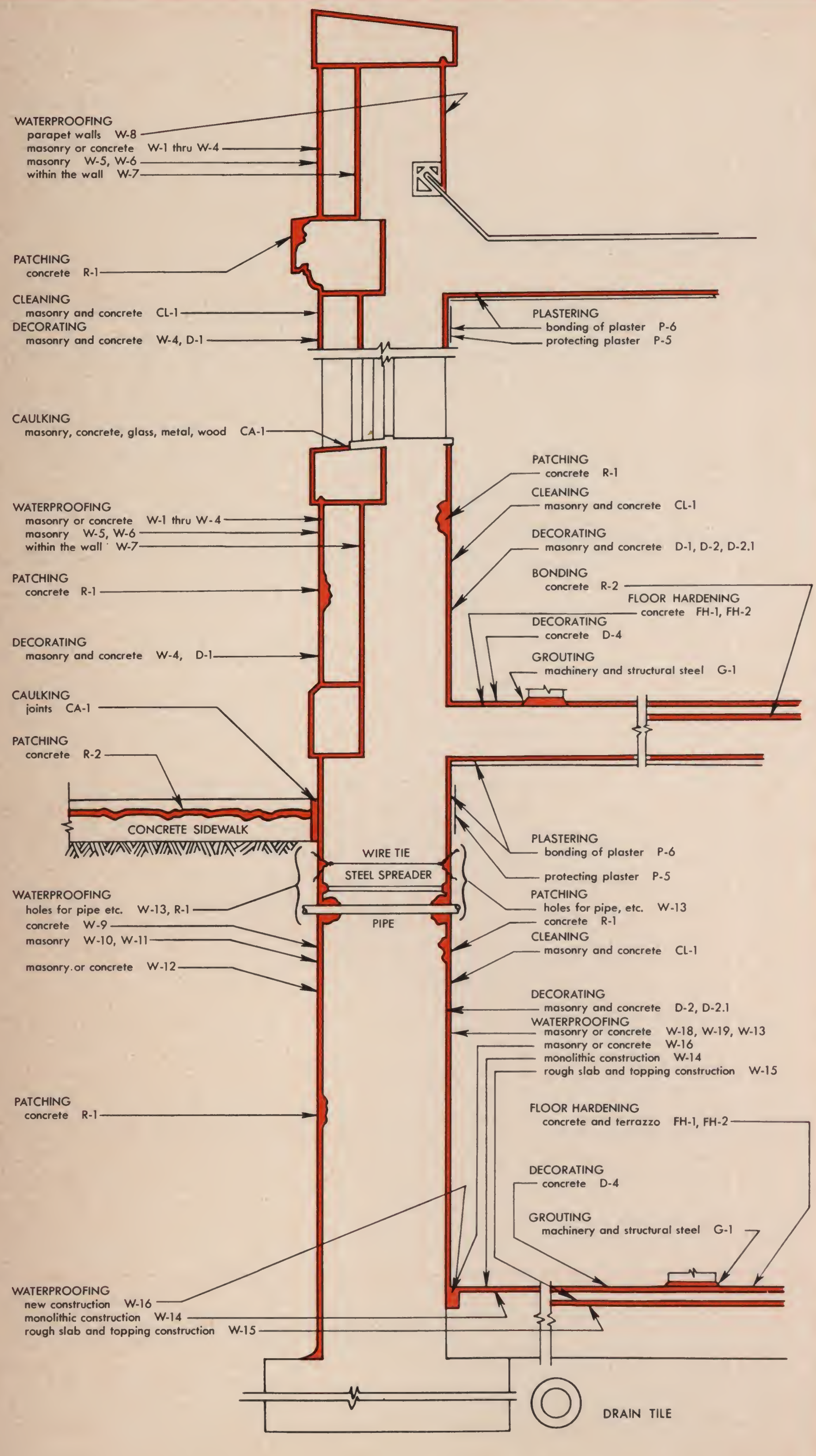
coverage

250—350 square feet per gallon.

packaging

Quarts, gallons, 5 gallon drums.

DETAILED SPECIFICATIONS . . . new construction



introduction

The detailed specifications below must be preceded by the general specifications on the back cover of this catalog.

These detailed specifications have been developed from laboratory tests and years of actual experience in the field. The symbols, W-1, W-2, W-3, P-1, P-2, P-3, D-1, D-2, D-3, etc. are standardized and may be incorporated into the specifications without fear of error of mistakes by bidding contractors.

In addition to the specifications outlined herein, Standard Dry Wall Products, Inc. has prepared detailed specifications covering more specific uses which are available upon request.

Capable, experienced, field engineers are located throughout the country, providing service for the architect, specification writer, engineer and contractor in analyzing problems or supervising jobs to insure proper use and application of materials.

WATERPROOFING
on exterior of walls

It is always better practice to waterproof the exterior of the wall when practical; obviously it is better to keep water out of the wall. Sometimes, however, it is impossible or impractical to waterproof the exterior surface. In such cases, Specification W-18 or W-19 is recommended.

WALLS ABOVE GRADE
masonry or concrete

(Note: for very smooth concrete or glazed tile or brick precede each specification by the following: "After cleaning surface thoroughly, apply one coat of THOROBOND by brush or spray and allow to dry for at least one hour.)

opaque coating—cementitious

W-1 for maximum waterproofing and a semi-rough sand finish, in color as selected.

Over previously prepared masonry, apply evenly-distributed base application of THOROSEAL, a minimum of 2 lb. per square yard of surface. Then apply finish coat of THOROSEAL, 1 lb. per square yard, in colors as selected and approved.

W-2 for ordinary water condition and a smooth finish, in color as selected.

Over previously prepared masonry surface, apply by brush a minimum of 2 lb. per square yard THOROSEAL base application. Then apply a minimum of ½ lb. QUICKSEAL finish coat per square yard in selected colors.

W-3 for severe water conditions and a smooth plaster-coat finish, in color as selected.

Apply by brush an evenly distributed base application of THOROSEAL at a minimum of 2 lb. per square yard. A trowel coat of THOROSEAL shall then be applied at a minimum of 12 lb. per square yard or sufficient material to bring surface to level and true lines. Add 25 lbs. clean white silica sand to each 50 lb. bag of THOROSEAL or 30 lbs. to each 60 lb. drum of THOROSEAL for plastering work.

W-4 for ordinary water conditions and a washable acrylic resin paint finish, in colors as selected.

Apply by brush one coat of THOROSEAL, a minimum of 2 lb. per square yard. Let cure 24 hours or longer and apply finish coat of THOROSHEEN RW7 in selected colors,

also see Specification W-7 and W-8 for waterproofing within the wall construction.

masonry
transparent coating—silicone

W-5 to minimize efflorescence and to keep building clean, for sealing brick, vertical concrete surfaces, stucco, asbestos shingles, etc. above grade.

Masonry to be treated shall be clean, free of stains, dry and in good repair. Completely cover all surfaces with THOROCLEAR 777. Low-pressure spray applications are preferred, but brushing is acceptable, providing surface is flooded with a rundown of at least 6 inches.

W-6 for most limestones and other porous type stone, and all horizontal concrete surfaces.

May be applied to a slightly dampened surface. Masonry shall be clean, free of stains and in good repair. Completely cover all surfaces with one coat THOROCLEAR SPECIAL. Low-pressure spray applications are preferred, but brushing will be effective providing surface is flooded with a rundown of at least 6 inches.

waterproofing within the wall

W-7 for waterproofing of masonry walls by back plastering.

Prior to placement of back-up units, apply one heavy coat of THOROSEAL at a minimum of 3 lb. per square yard to completely fill and seal all mortar joints, pores and voids in the interior surface of the exterior wall.

W-8 for waterproofing parapet walls.

Prior to placement of coping, apply by brush 3 lb. THOROSEAL per square yard to all parapet walls on the roof side from roof flashing to top of wall and extending over entire top surface. All joints, pores and voids of wall areas and top surface of parapet wall shall be completely filled and sealed.

WALLS BELOW GRADE
concrete

W-9 for ordinary water pressure or dampness.
Upon the removal of forms, any excess form oil remaining on concrete surface to be sealed shall be removed by washing with solution of muriatic acid or THOROCLEAN and water or scrubbing with wire brush. Apply one coat of THOROSEAL or THOROSEAL FOUNDATION COATING, minimum of 2 lb. per square yard. Care to be exercised to assure complete sealing of the surface down to and including the footer, forming 1½′ cove at junction of walls and footer.

masonry

W-10 for ordinary water pressure or dampness.
Apply two evenly distributed THOROSEAL or THOROSEAL FOUNDATION COATING applications, a minimum of 2 lb. per square yard for each application or a total of 4 lb. per square yard. Care to be exercised to assure complete sealing of the surface down to and including the footer, forming 1½″ cove at junction of walls and footer.

W-11 for ordinary water pressure or dampness and where local codes require a parging coat.
A parging coat to hide mortar joints and true the surface shall be applied over exterior foundation walls composed of one part Portland cement to two parts clean, coarse sand. Immediately upon completion of parging coat, apply by brush, minimum of 2 lb. THOROSEAL or THOROSEAL FOUNDATION COATING per square yard to seal the surface.

masonry or concrete

W-12 for severe water pressure.
Over previously prepared surface, apply by brush, THOROSEAL or THOROSEAL FOUNDATION COATING, averaging 2 lb. per square yard. After a lapse of twelve hours, a trowel coat of THOROSEAL or THOROSEAL FOUNDATION COATING shall be applied, using a minimum of 12 lb. per square yard or sufficient material to bring surface to level and true lines. Care should be taken to see that both applications are carried down to and over footer, forming a 1½″ cove at the junction of walls and footer.

also see Specification W-16 for junction between walls and floors.

W-13 for patching holes made for pipes, anchors, bolts and other appurtenances which pierce walls.
All pipes, anchors, bolts or other appurtenances which pierce foundation walls below grade shall be anchored in place and protected by WATERPLUG raggle, the encasement to completely seal the steel from contact with masonry surfaces and close the opening between steel and masonry.

FLOOR SLABS ON OR BELOW GRADE

Areas extending below established sewers and drains and subject to constant water pressure should have relief under-drainage connected with sump and pump to relieve pressure on floor slabs.

concrete

W-14 for ordinary water pressure—monolithic construction.
All interior floor slabs in basement and throughout the building shall have impregnated in the fresh concrete 4 lb. THOROSEAL to each square yard of floor surface. Concrete shall be leveled off and straightened to line and grade, the surface shall be immediately covered with a thin layer of previously-mixed THOROSEAL, averaging 4 lb. to each square yard of surface and floated into the concrete in such manner that the THOROSEAL application cannot be observed as a finish coat or any of it remian on surface. The concrete slab shall be troweled to smooth finish.

W-15 for severe water pressure—rough slab and topping construction.
Immediately after rough slab can be walked on, apply one coat of THOROSEAL at 2 lb. per square yard. Apply second coat, 1 lb. per square yard, just prior to placement of topping. In all cases, make sure surface is clean and free of all dirt, etc. If painted floor is desired see Specification D-4 below. For floor hardening see Specification FH-1 or FH-2.

W-16 for junction between concrete floor and masonry or concrete wall.
Form raggle throughout basement and subbasement rooms and pits by inserting strip 1″ x 1″ at junction of all vertical masonry walls and concrete floor slabs. The top edge of strip shall be laid true and even with finished concrete floors and left in place until fresh concrete has cured. Remove wood raggle strip previously inserted; wash the groove with clean water from hose to remove spill. Fill groove over full with WATERPLUG Hydraulic Cement mixed to consistency of mortar, shove or tamp into place with round-edged tool to form 1½″ cove. Keep WATERPLUG damp for 15 minutes if no active water is present.

on interior of walls

Waterproofing is recommended on interior surfaces only where it is impractical or impossible to apply waterproofing to the exterior surfaces, or where waterproofing on the exterior surfaces has failed. However, due to its exceptional filling and sealing qualities, THOROSEAL is frequently specified as an interior finish even when no waterproofing is required.

WALLS ABOVE GRADE
masonry or concrete

for plaster protection when plastering directly to the exterior masonry wall, see Specification P-5.

WALLS BELOW GRADE
masonry or concrete

W-18 for ordinary water pressure or dampness.
After walls have been thoroughly cleaned and repaired, apply two THOROSEAL applications by brush. Apply the base application, minimum of 2 lb. THOROSEAL per square yard, to fill and and seal the surface. Then apply by brush a finish coat of THOROSEAL, minimum of 1 lb. per square yard of surface.
If extra smooth finish in color is desired, specify finish coat of QUICKSEAL; see Specification W-2.

W-19 for severe water pressure or to achieve a finished plaster surface.
After walls have been thoroughly cleaned and repaired, apply by brush minimum of 2 lb. THOROSEAL to each square yard, as bond coat. Allow to dry for twelve hours and then apply minimum of 10 lb. THOROSEAL to each square yard, by trowel, hiding all form marks and other construction faults, bringing surface to true and even lines with sand finish.
If extra smooth finish in color is desired, specify finish coat of QUICKSEAL, see Specification W-2. If painted floor is desired, see Specification D-4, also see Specification W-16 and W-17 for junction between walls and floors.

FLOOR SLABS ON OR BELOW GRADE
concrete

see Specification W-14, W-15 and W-16.

PATCHING & REPAIRING
exterior or interior surfaces
WALLS ABOVE OR BELOW GRADE
concrete

R-1 for holes, blisters, patches, honeycomb and other construction faults in walls.
Remove all tie wires, wood or steel separators by cutting back from surface to depth of 1″. Mix WATERPLUG Hydraulic Cement to consistency of mortar and fill all holes, blisters, patches, honeycomb and other construction faults flush with surrounding surfaces. Scratch the finish for later applications. (If there is no active water present, THORITE Patching Mortar can be used.)

SIDEWALKS AND FLOORS
concrete

R-2 for bonding concrete to concrete—new or old.
Surface shall be clean and free of dirt, oil, grease etc. and structurally sound. Apply THOROBOND in an evenly distributed coat but not permitting THOROBOND to puddle in low spots. Allow at least one hour drying time before applying topping.

PLASTERING
interior surfaces
WALLS AND CEILINGS ABOVE AND BELOW GRADE
masonry and concrete

P-5 for plaster protection when plastering directly to exterior masonry wall. (Do not use on ceilings.)
All interior surfaces of exterior walls to be plastered shall be thoroughly cleaned, making sure that all excess mortar is removed and repointing done where necessary. The quantity of material used shall be sufficient to fill all voids, cracks and other defects or a minimum of 3 lb. VABAR per square yard of wall surface. The surface shall be left in a rough abrasive texture by brooming. Plastering may proceed at any time after completion of VABAR application. Curing period of several days is recommended. If glaze develops on surface, wire brush or etch with THOROCLEAN and flush with water.

P-6 for bonding plaster to non-absorbant surfaces such as concrete, wood and steel; (do not use where constant water is present)
Surface shall be clean and free of dirt, oil, grease, etc. Apply THOROBOND by brush or spray, allowing at least one hour drying time before applying plaster. Do not apply THOROBOND to questionable surface. If surface is dusty, sandy or peeling, clean thoroughly by removing dirt, oil, grease, detergents, water soluble paints, glue, size, etc., before using. If surface is questionable, apply test patch of THOROBOND. After drying 30 to 40 minutes, check patch for peeling, curling or signs that indicate it has not adhered properly. THOROBOND must have a sound, clean surface for perfect bonding.

DECORATING
exterior and interior surfaces
WALLS ABOVE GRADE
masonry and concrete

D-1 for decorating painted or unpainted masonry walls, completely covers old paint and provides an extremely durable washable finish; retains texture of masonry.
Over previously prepared surface, apply one coat of THOROSHEEN RW7. (One coat gives good coverage. If two coats are desired, allow the first application to cure for one to two hours before making a second application.)
for bonding plaster to masonry or concrete see Specification P-5 and P-6.

interior surfaces
WALLS ABOVE AND BELOW GRADE
masonry and concrete

D-2 for cementitious, extra-smooth finish in color as selected.
In all rooms as scheduled or shown on plans where THOROSEAL base and sealer application has been specified, brush on one coat of QUICKSEAL, minimum of ½ lb. to each square yard of surface in colors as selected.

D-2.1 to fill and seal the surface and to provide a washable acrylic resin paint finish, in colors as selected.
Apply by brush one coat of THOROSEAL, a minimum of 2 lb. per square yard. Let cure 24 hours or longer and apply finish coat of THOROSHEEN RW7 in selected colors.

FLOORS ABOVE AND BELOW GRADE
concrete

D-4 for sealing and finishing concrete floors in color as selected.
New concrete floors, after curing 14 to 21 days, shall be given one coat of THOROLOK #100 sealer. Finish coat of THOROLOK Blue Star Brand in color selected shall be applied after cement floor has aged 2 to 3 months.

FLOOR HARDENING
FLOORS ABOVE AND BELOW GRADE
concrete and terrazzo

FH-1 for hardening and to prevent dusting.
All concrete and terrazzo floors, after being thoroughly cured and dry, shall be hardened with P & W Floor Hardener. Applications shall be made according to manufacturer's printed instructions.

FH-2 for hardening concrete floors and toppings
Floor areas shall be constructed and hardened with THOROSET Metallic Floor Hardener. Prepare dry mixture by weight of 2 parts THOROSET Metallic Floor Hardener and 1 part Portland Cement. Apply as a dust coat in strict accordance with manufacturer's instructions.

GROUTING
FLOORS ABOVE AND BELOW GRADE
machinery and structural steel on concrete

G-1 for grouting machinery or structural steel resting on masonry.
All concrete grouting shall be done with THOROSET Metallic Grouting Compound. Manufacturer's instructions shall be strictly followed for all applications.

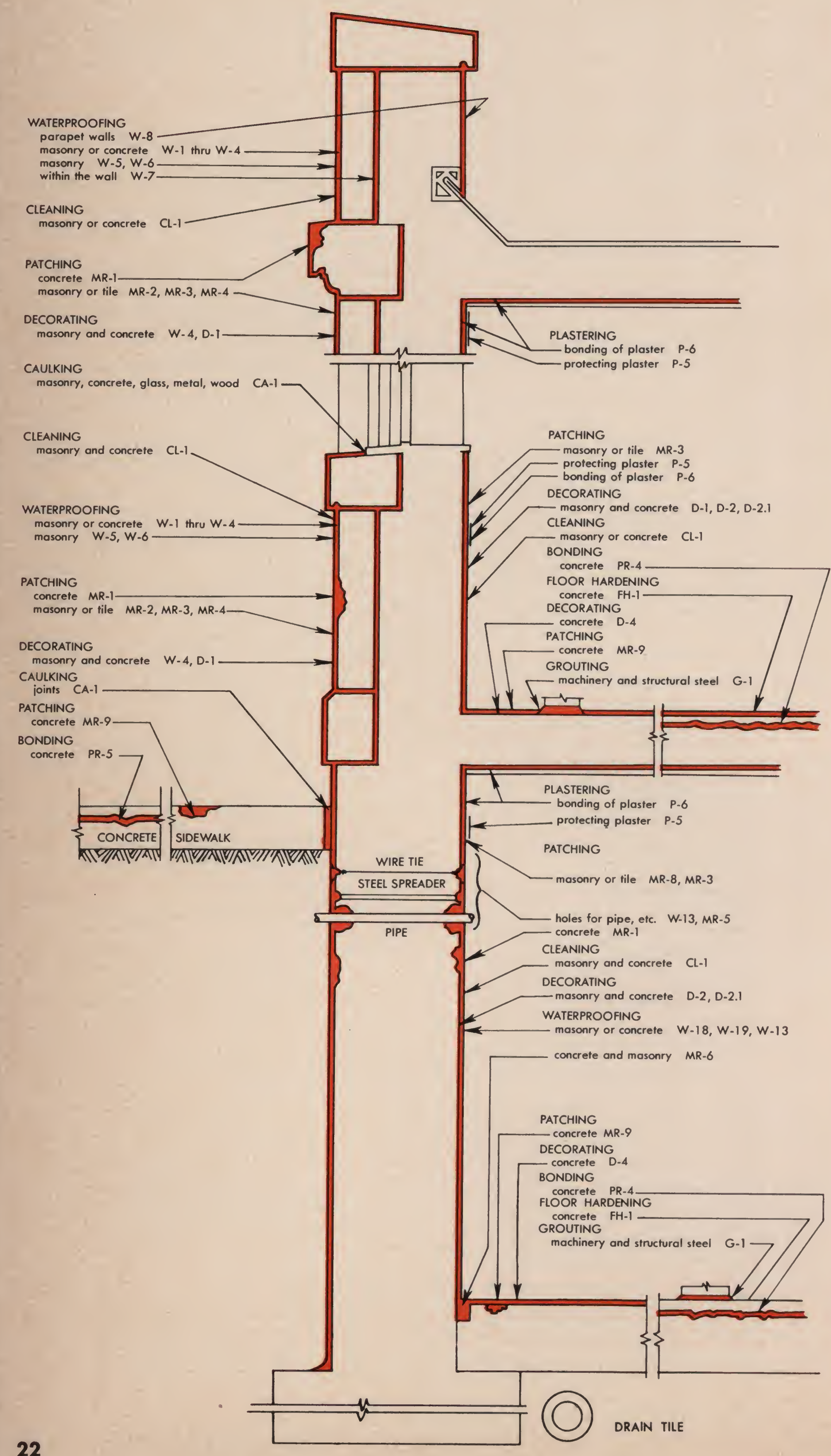
CLEANING EXTERIOR AND INTERIORS
WALLS ABOVE AND BELOW GRADE
masonry and concrete

CL-1 for removing excess mortar, efflorescence, dirt accumulation, soil.
Concrete and masonry surfaces (except limestone) to be cleaned of excess mortar, dirt and efflorescence shall be cleaned with THOROCLEAN. Concentrations of THOROCLEAN required will depend on the accumulation of mortar, dirt and efflorescence to be removed. Consult manufacturer's instructions for complete details of application.

CAULKING JOINTS IN EXTERIOR WALLS
masonry, concrete, glass, metal and wood

CA-1 to seal joints where expansion and contraction are factors.
All joints subjected to movement caused by expansion or contraction, window and door frames, spandrel panels and other openings shall be caulked with THOROSPAN. Thoroughly clean joints where THOROSPAN sealant is to be applied; remove all previous caulking and sealants, and all traces of asphalt, oil, protective films, waterproofings, etc. If oil has been absorbed into the pores of the concrete, enough concrete must be removed to insure a clean surface. Use THOROSPAN Primer for all surfaces under water (except glass or glazed surfaces) and for all porous surfaces including concrete, brick, marble, block, limestone and granite. Consult manufacturer's instructions for complete details of application.

DETAILED SPECIFICATIONS . . . maintenance & restoration



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RESTORATION

exterior surfaces

ABOVE GRADE

concrete

MR-1 for patching spalled concrete

Sections of concrete found to be cracked, spalled, or otherwise showing evidence of disintegration or structural failure shall be cut out to the full depth of deterioration or down to sound surface. Cavities thus formed will be thoroughly flushed clean by water pressure from hose, or blown clean with air pressure, then patched with THORITE. Manufacturer's instructions for application shall be strictly followed.

masonry

MR-2 for tuck pointing mortar joints in all masonry walls—brick, sandstone, limestone, etc.

All masonry joints found to be loose, weak, broken or structurally defective shall be cut out to a minimum depth of ⅝" or until sound surface is reached. Flush all joints with water and repoint with DRYJOINT. Placement may be made with caulking gun. All brick found to be loose, disintegrated or spalled shall be replaced.

MR-3 for grouting (sealing and filling) mortar joints in walls of smooth hard burned brick or tile which have hairline cracks or where mortar has shrunk

After joints have been thoroughly cleaned, scr D-J MORTAR into joints and over tile or brick an then wipe off, making certain that all cracks in joints and tile or brick are sealed.

MR-4 for grouting (sealing and filling) mortar joints in walls of common, textured, or soft brick which have hairline cracks or where mortar has shrunk

After joints have been thoroughly cleaned, the individual brick faces will be masked with a special masking tape. Scrub D-J MORTAR into joints, making sure all cracks in joints are filled. Then strip tape before grout has set.

concrete or masonry

CL-1 for cleaning concrete or masonry (except limestone).

Concrete and masonry surfaces (except limestone) to be cleaned of excess mortar, dirt, and efflorescence shall be cleaned with THOROCLEAN. Concentration of THOROCLEAN required will depend on the accumulation of mortar, dirt, and efflorescence to be removed. Consult manufacturer's instructions for complete details of application.

concrete side walks, driveways, ramps

MR-9 for patching holes in horizontal or near-horizontal concrete surfaces.

Chip out all loose materials and disintegrated concrete. Clean off all oils, greases, dirt, salt deposits, etc. Prepare a good clean surface, flush clean and then patch area with THOROPATCH. Follow manufacturer's instructions for application.

PR-4 for bonding concrete to concrete—new or old

Thoroughly clean entire surface of all paints, films coatings, dirt, efflorescence, grease, etc. Sections of concrete found to be cracked, spalled or otherwise showing evidence of deterioration shall be cut out to full depth of deterioration or down to sound surface. Apply THOROBOND in an evenly distributed coat but not permitting THOROBOND to puddle in low spots. Allow at least one hour drying time before applying topping.

CA-1 to fill joints where expansion and contractio are important factors.

All joints subjected to movement caused b expansion or contraction, window and door frames, spandrel panels and other openings shall be caulked with THOROSPAN. Thoroughly clean joints where THOROSPAN sealant is to be applied; remove all previous caulking and sealants, and all traces of asphalt, oil, protective films, waterproofings, etc. If oil has been absorbed into the pores of the concrete, enough concrete must be removed to insure a clean surface. Use THOROSPAN Primer for all surfaces under water (except glass or glazed surfaces) and for all porous surfaces including concrete, brick, marble, block, limestone and granite. Consult manufacturer's instructions for complete details of application.

interior surfaces

BELOW GRADE

concrete

MR-5 for holes, blisters, patches, honeycomb and other construction faults in walls.
Remove all tie wires, wood or steel separators by cutting back from surface to depth of 1". Mix WATERPLUG hydraulic cement to consistency of mortar and fill all holes, blisters, patches, honeycomb and other construction faults flush with surrounding surfaces. Scratch the finish for later applications. (If there is no active water present, THORITE patching mortar can be used.)

concrete and masonry

MR-6 to seal crack at junction of floor and wall.
Cut out crack at least ¾" wide and deep, cutting back into wall slightly. Flush away all cuttings and dirt. Force WATERPLUG into prepared crack with a round tool and smooth out. Form cove at junction.

MR-7 to stop streams of running water.
Cut out crack or hole to a minimum depth and width of ¾". Start at top and force WATERPLUG into crack. At points of greater pressure, do not place WATERPLUG into opening immediately. Hold in hand or trowel until slight warmth or drying occurs. Then press WATERPLUG firmly into opening; exert full pressure. Do not remove trowel or hand too soon. After stopping active water, cut off patch even with surrounding wall surfaces.

MR-8 to repair defective mortar joints and cracks in masonry walls or cracks in concrete walls.
Cut out defective mortar joints or cracks to a minimum width and depth of ¾". Force WATERPLUG into crack and keep damp for at least 15 minutes.

W-13 for patching holes made for pipes, anchors, bolts and other appurtenances which pierce walls.
All pipes, anchors, bolts or other appurtenances which pierce foundation walls below grade shall be anchored in place and protected by WATERPLUG raggle, the encasement to completely seal the steel from contact with masonry surfaces and close the opening between steel and masonry.

MR-3 for grouting (sealing and filling) mortar joints in walls of smooth hard burned brick or tile which have hairline cracks or where mortar has shrunk.
After joints have been thoroughly cleaned, scrub D-J MORTAR into joints and over tile or brick and then wipe off, making certain that all cracks in joints and tile or brick are sealed.

MR-9 for patching holes in horizontal or near horizontal concrete surfaces.
Chip out all loose materials and disintegrated concrete. Clean off all oils, greases, dirt, salt deposits, etc. Prepare a good clean surface, flush clean and then patch area with THOROPATCH. Follow manufacturer's instructions for application.

PR-4 for bonding concrete to concrete—new or old.
Thoroughly clean entire surface of all paints, films coatings, dirt, efflorescence, grease, etc. Sections of concrete found to be cracked, spalled or otherwise showing evidence of deterioration shall be cut out to full depth of deterioration or down to sound surface. Apply THOROBOND in an evenly distributed coat but not permitting THOROBOND to puddle in low spots. Allow at least one hour drying time before applying topping.

WATERPROOFING

exterior surfaces

ABOVE GRADE

masonry or concrete

(Note: for very smooth concrete or glazed tile or brick precede each specification by the following: "After cleaning surface thoroughly apply one coat of THOROBOND by brush or spray and allow to dry for at least one hour.")

opaque coating—cementitious

W-1 for maximum waterproofing and a semi-rough sand finish, in color as selected.
Over previously prepared masonry, apply evenly-distributed base application of THOROSEAL, a minimum of 2 lb. per square yard of surface. Then apply finish coat of THOROSEAL, 1 lb. per square yard, in colors as selected and approved.

W-2 for ordinary water condition and a smooth finish, in color as selected.
Over previously prepared masonry surface, apply by brush a minimum of 2 lb. per square yard THOROSEAL base application. Then apply a minimum of ½ lb. QUICKSEAL finish coat per square yard in selected colors.

W-3 for severe water conditions and a smooth plaster-coat finish, in color as selected.
Apply by brush an evenly-distributed base application of THOROSEAL at a minimum of 2 lb. per square yard. A trowel coat of THOROSEAL shall then be applied at a minimum of 12 lb. per square yard or sufficient material to bring surface to level and true lines. Add 25 lbs. clean white silica sand to each 50 lb. bag of THOROSEAL or 30 lbs. to each 60 lb. drum of THOROSEAL for plastering work.

W-4 for ordinary water conditions and a washable acrylic resin paint finish, in colors as selected.
Apply by brush one coat of THOROSEAL, a minimum of 2 lb. per square yard. Let cure 24 hours or longer and apply finish coat of THOROSHEEN RW7 in selected colors.

Also see Specification W-7 and W-8 for waterproofing within the wall construction.

masonry

transparent coating—silicone

W-5 to minimize efflorescence and to keep building clean, for sealing brick, vertical concrete surfaces, stucco, asbestos shingles, etc. above grade.
Masonry to be treated shall be clean, free of stains, dry and in good repair. Completely cover all surfaces with THOROCLEAR 777. Low-pressure spray applications are preferred, but brushing is acceptable, providing surface is flooded with a rundown of at least 6 inches.

W-6 for most limestones and other porous type stone, and all horizontal concrete surfaces.
May be applied to a slightly dampened surface. Masonry shall be clean, free of stains and in good repair. Completely cover all surfaces with one coat THOROCLEAR SPECIAL. Low-pressure spray applications are preferred, but brushing will be effective providing surface is flooded with a rundown of at least 6 inches.

parapet walls of masonry under coping

W-8 for waterproofing parapet walls.
Prior to placement of coping, apply by brush 3 lb. THOROSEAL per square yard to all parapet walls on the roof side from roof flashing to top of wall and extending over entire top surface. All joints, pores and voids of wall areas and top surface of parapet wall shall be completely filled and sealed.

interior surfaces

BELOW GRADE

concrete or masonry

W-18 for ordinary water pressure or dampness.
After walls have been thoroughly cleaned and repaired, apply two THOROSEAL applications by brush. Apply the base application, minimum of 2 lb. THOROSEAL per square yard, to fill and seal the surface. After twelve hours or longer period of curing, apply by brush a finish coat of THOROSEAL, minimum of 1 lb. per square yard of surface.
If extra smooth finish in color is desired, specify finish coat of QUICKSEAL; see Specification D-2 below.

W-13 for patching holes made for pipes, anchors, bolts and other appurtenances which pierce walls.
All pipes, anchors, bolts or other appurtenances which pierce foundation walls below grade shall be anchored in place and protected by WATERPLUG raggle, the encasement to completely seal the steel from contact with masonry surfaces and close the opening between steel and masonry.

W-19 for severe water pressure or to achieve a finished plaster surface.
After walls have been thoroughly cleaned and repaired, apply by brush minimum of 2 lb. THOROSEAL to each square yard, as bond coat. Allow to dry for twelve hours and then apply minimum of 10 lb. THOROSEAL to each square yard, by trowel, hiding all form marks and other construction faults, bringing surface to true and even lines with sand finish.
If extra smooth finish in color is desired, specify finish coat of QUICKSEAL, see Specification D-2 below.

PLASTERING

interior walls and ceilings

ABOVE GRADE

P-5 for plaster protection when plastering directly to exterior masonry wall. (Do not use on ceilings.)
All interior surfaces of exterior walls to be plastered shall be thoroughly cleaned, making sure that all excess mortar is removed and repointing done where necessary. The quantity of material used shall be sufficient to fill all voids, cracks and other defects or a minimum of 3 lb. VABAR per square yard of wall surface. The surface shall be left in a rough abrasive texture by brooming. Plastering may proceed at any time after completion of VABAR application. Curing period of several days is recommended. If glaze develops on surface, wire brush, or etch with THOROCLEAN and flush with water.

P-6 for bonding plaster to non-absorbent surfaces such as concrete, wood and steel; do not use where constant water is present.
Surface shall be clean and free of dirt, oil, grease, etc. Apply THOROBOND by brush or spray, allowing at least one hour drying time before applying plaster. Do not apply THOROBOND to questionable surface. If surface is dusty, sandy or peeling, clean thoroughly by removing dirt, oil, grease, detergents, water soluble paints, glue, size, etc., before using. If surface is questionable, apply test patch of THOROBOND. After drying 30 to 40 minutes, check patch for peeling, curling or signs that indicate it has not adhered properly. THOROBOND must have a sound, clean surface for perfect bonding.

DECORATING

exterior and interior surfaces

WALLS ABOVE GRADE

masonry and concrete

D-1 for decorating painted or unpainted masonry walls, completely covers old paint and provides an extremely durable washable finish; retains texture of masonry.
Over previously prepared surface, apply one coat of THOROSHEEN RW7. (One coat gives good coverage. If two coats are desired, allow the first application to cure for one to two hours before making a second application.)
For bonding plaster to masonry or concrete see Specification P-5 and P-6.

interior surfaces

WALLS ABOVE AND BELOW GRADE

masonry and concrete

D-2 for cementitious, extra-smooth finish in color as selected.
In rooms as scheduled or shown on plans where THOROSEAL base and sealer application has been specified, brush on one coat of QUICKSEAL, minimum of ½ lb. to each square yard of surface in colors as selected.

D-2.1 to fill and seal the surface and to provide a washable acrylic resin paint finish, in colors as selected.
Apply by brush one coat of THOROSEAL, a minimum of 2 lb. per square yard. Let cure 24 hours or longer and apply finish coat of THOROSHEEN RW7 in selected colors.

FLOORS ABOVE AND BELOW GRADE

concrete

D-4 for sealing and finishing concrete floors in colors as selected.
New concrete floors, after curing 14 to 21 days, shall be given one coat of THOROLOK #100 sealer. Finish coat of THOROLOK Blue Star Brand in color selected shall be applied after cement floor has aged 2 to 3 months.

FLOOR HARDENING

interior surfaces

FLOORS ABOVE AND BELOW GRADE

concrete and terrazzo

FH-1 for hardening and to prevent dusting.
All concrete and terrazzo floors, after being thoroughly cured and dry, shall be hardened with P & W Floor Hardener. Applications shall be made according to manufacturer's printed instructions.

GROUTING

FLOORS ABOVE AND BELOW GRADE

machinery and structural steel on concrete

G-1 for grouting machinery or structural steel resting on masonry.
All concrete grouting shall be done with THOROSET Metallic Grouting Compound. Manufacturer's instructions shall be strictly followed for all applications.

GENERAL SPECIFICATIONS

See pages immediately preceding for detailed specifications.

general conditions

A. "The General Conditions of the Contract for the Construction of Buildings" Standard Form of American Institute of Architects, latest edition, are part of this contract and shall be read by the contractor.

B. All work shall be performed by a subcontractor who is familiar with waterproofing work or other work of the character required.

scope of work

A. Furnish labor, materials, services, and equipment to complete waterproofing work or other work indicated in the drawings or specified herein.

B. The contractor shall be responsible for, and be governed by, all requirements specified under such heading which in any way affect the work under this section of the specifications.

materials

A. All materials shall be as manufactured by Standard Dry Wall Products, Inc. unless otherwise specified.

B. All materials shall be delivered to the job site in sealed containers bearing manufacturer's original labels.

C. All materials shall be mixed according to manufacturer's printed instructions and a copy of such instructions shall be maintained on the job and made available to the architect or engineer at his request.

D. Any exceptions to these specifications must be requested by the contractor in writing to the architect, stating his reasons, with detailed explanation.

preparation of surface

A. The surface shall be cleaned by approved methods until free of dirt, loose mortar particles, paints, films, protective coatings, efflorescence, latence etc. If transparent silicone finishes are to be used, all stains must be removed as well.

If work is to be done on concrete or masonry walls holding water under pressure, weep holes shall be made at the base of the wall to relieve the pressure. On the day following final treatment of the walls the weep holes shall be repaired with WATERPLUG applied according to manufacturer directions.

Standard Dry Wall Products, Inc. does not presume to tell the architect how the surface shall be cleaned. Local and field conditions vary from job to job. The cleaning processes may include wet or dry sandblasting, acid washing, wire brushing, or steam cleaning, the use of THOROCLEAN (see specification CL-1 on preceding pages), or a combination of these. Any of our Sales Engineers listed on the back cover of this catalog will be happy to make suggestions and recommendations based upon their wide experience.

workmanship

A. All materials shall be applied in accordance with manufacturer's printed instructions.

B. Materials mixed with water, or materials affected by cold weather, shall not be applied on frost-covered masonry surface or frozen wall, nor when temperatures are below 40 degrees, nor when temperatures are expected to fall below 40 degrees within 24 hours.

C. When water-mixed materials are to be applied to masonry or concrete walls exposed to hot sun or other heating conditions, these areas shall be cooled first by hosing with clean water until surface cools.

D. When work with water-mixed materials is progressing under hot sun, drying wind, or when evidence of extremely rapid drying appears, the finished surface shall be cured by fog spraying with water.

E. At conclusion of the work, the contractor shall remove all debris and work equipment and leave the premises in their original state of order.

Alaska, Anchorage
Alaska Concrete Conduit Co.
P. O. Box 97

Alaska, Fairbanks
Alaska Concrete Conduit Co.
P. O. Box 378

California, San Francisco
T. H. Pitt Co.—1133 Mariposa St.
Phone: HE 1-2550

California, Van Nuys
Weatherwise Products, Inc.—15119 Oxnard St.
Phone: ST 6-2460
TR 3-2586 (Los Angeles)

Colorado, Denver
Francis J. Fisher, Inc.—2363 Blake St.
Phone: TA 5-6203

Hawaii, Honolulu
Hawaii Builders Supply Co. Ltd.—
1105 Dillingham Blvd.
Phone: 82261

Idaho, Boise
Wholesales, Inc.—6001 Fairview
Phone: 4-2528

Montana, Great Falls
Montana Concrete Pipe Co.
P. O. Box 1358

Oregon, Portland
A. McMillan & Co.—220 S. E. Ankeny St.
Phone: BE 2-0178

Texas, Houston
Builders Equipment & Tool Co.—1629 Enid St.
Phone: UN 9-3495

Texas, San Antonio
Central Supply Co.—716 E. Commerce St.
Phone: CA 6-6363

Washington, Pasco
Western Material, Inc.—317 S. 5th St.

Washington, Seattle
Salmon Bay Sand & Gravel Co.—5228 Shilshole
Phone: SU 4-1234

Washington, Yakima
Fosseen's Inc.—101 W. Yakima Ave.
Phone: CH 8-0700

Philippines, Manila
Theo. H. Davies, Far East, Ltd.
Davies Bldg.

STANDARD DRY WALL PRODUCTS, INC.

general office and plant: **New Eagle, Pennsylvania**
midwest plant: **Centerville, Indiana**

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A.I.A File 7-A

4a
Th

positive

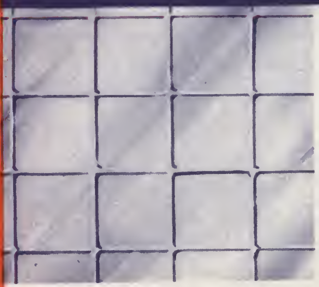
WATERPROOFING

protection

CURING COMPOUND • BOND-BREAKER
FORM SEAL FOR POUR-IN-PLACE CONSTRUCTION
TILT-UP & LIFT SLAB

Thompson's
WATER SEAL

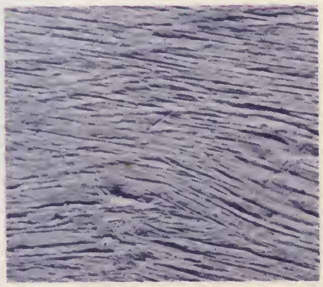
PERFECT SURFACE SEALING FOR...


TILE

WOOD

BRICK

METAL


PLASTER

CONCRETE

Also . . .

- stone
- asbestos
- fabrics
- paint
- linoleum
- stucco
- shingles
- mortar

E. A. THOMPSON COMPANY, INC.
SAN FRANCISCO 3, CALIFORNIA

A.I.A File No. 7-A

Thompson's WATER SEAL

A proved-type sealant for positive protection against the costly damaging effects of water. This dependable sealer is composed of several organic and mineral-organic compounds which are polymerized and carried in an aromatic solvent. Thompson's Water Seal is not "silicone-based," and should not be confused with such products; it contains no wax, paraffin, oil, soap, silicate of soda, or varnish. It never causes or leaves a sticky residue or greasy film on a surface when properly applied, nor does it discolor under the action of sun and weather, or add any color of its own to a material on which it is applied.

how it works

Thompson's Water Seal penetrates into the surface, carrying solids right into the pores where expansion takes place. This action literally corks up the pores to a depth of as much as 1 in. or more, depending upon the variables encountered. Even iron and steel may be effectively inhibited from rusting, although the actual penetration is slight.

ADVANTAGES

positive protection

Years of lasting protection is assured since Thompson's Water Seal actually becomes a part of the surface treated, providing a strong defensive seal against weather and moisture damage. Tests prove that this seal remains effective for as long as five years or more, and will withstand such extreme conditions as boiling water or heat up to 300° F. It cannot wear off even with the hardest use.

easy to apply

All of the common methods can be used for quick, easy application. Applying Thompson's Water Seal never requires any more than ordinary skill for excellent results every time. Paint thinner or gasoline will effectively clean brushes and spray equipment.

also . . .

- roller
- dipping
- squeegee
- push-broom

spray

brush

safe to use

Non-toxic, harmless to clothing. Will not harm the skin when dry; wet, will interfere with natural perspiration, but is easily removed from hands and face by washing with oil shampoo, lanolin soap or mild detergent.

economical

Moisture damage is measured in dollars, lasting positive protection is assured for just pennies with Thompson's Water Seal; actually as low as $\frac{3}{4}$c per sq. ft.

Sample Specification

Waterproofing shall be furnished on all surfaces of.............., as shown on details.............. on Drawing Nos.............. Waterproofing sealing compound shall be of a proved type such as Thompson's Water Seal, as manufactured by E. A. Thompson Co., Inc., 1355 Market St., San Francisco 3, California. Waterproofing shall be installed in accordance with the instructions of the manufacturer.

APPLICATIONS

GENERAL Architects and engineers are specifying Thompson's Water Seal for all of the common construction surfaces given on the next page, whenever positive waterproofing protection is required. For other applications not covered in this catalog, contact E. A. Thompson Co., Inc., directly.

Precast, Tilt-up, Lift-Slab CURING: Thompson's Water Seal is an excellent curing compound, applied after the final steel troweling, or troweled in — after the bull-float — depending upon prevailing weather conditions. For curing, apply at the rate of 400 square feet per gallon. When using the trowel-in method (on hot, windy days) apply a light, second coat, after the final steel trowling.

Precast, Tilt-up, Lift-Slab BOND-BREAKING: Thompson's Water Seal is an excellent parting compound, or bond-breaker, when applied at the rate of 400 square feet to the gallon. Use spray, brush, or roller-coater. Remove surplus after an hour or two.

NOTE: When Thompson's Water Seal has not been used as the curing agent, two applications are necessary — spaced approximately four days apart. If climatic conditions are such that concrete can be poured, even in cold weather, Thompson's Water Seal can be used with excellent results for this purpose.

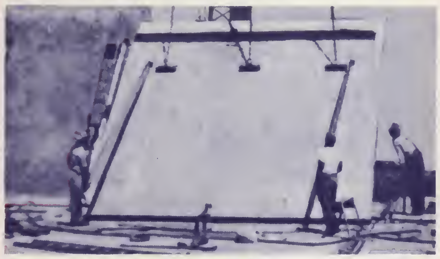
drying

Air Surfaces are usually dry within 24 hours, although the penetration and expansion process continues for about four days. When two applications are specified, four days are usually required between applications. Provide forced draft ventilation at start of indoor use.

helps prevent costly damage due to . . .

- Oxidation of aluminum and sash trim.
- Warping, swelling and fiber deterioration in wood.
- Fading, chipping, blistering, peeling paint.
- Rotting canvas or leather goods.
- Crumbling mortar.
- Water absorption in bricks.
- Seepage in plaster or concrete.
- Hydrostatic pressure. Efflorescence.
- Moisture absorption in plywood.
- Blistering of varnished finishes.
- Oxidation, discoloration in wood, paint.
- Action of lime, organic acids, alkalies.
- Moisture penetration in asbestos, stucco.
- Rusting of ferrous metals.

Plywood or lumber forms, DIPPING: Submerge for 15 seconds, remove and stack wet (no sticks between plywood required) for two days. Dip again as before and restack, wet, for an additional two days. Panels may be reversed and used without further treatment. Cleaning is unnecessary between pours.



Thompson's Water Seal used as the curing and bond-breaker on a typical Tilt-up job.

Brushing Thompson's Water Seal on grandstand to preserve the finish and stop moisture damage.

Thompson's Water Seal used in construction of this five story Lift-Slab building.

Applying Thompson's Water Seal to plywood forms for Gunite construction.

Floors: Thompson's Water Seal seals NEW terrazzo floors. Apply one liberal coat. After two hours, pick up surface material, using dry, string mop. After two to four days, a second application is recommended, using same method. Floor can then be maintained in normal manner.

GENERAL INFORMATION

weathering

Lasting protection from the damaging effects of weather, like moisture penetration and oxidation, is assured because of deep down expansion action.

chemical resistance

Not affected by lime, organic acids, saltwater, strong alkalies, etc.

resistance to abrasion

Cannot wear off even with the hardest use. Penetrates deep into any porous material, from $\frac{1}{16}$ to 1 in. or more, and expands in the pores to form a lasting watertight seal.

coverage

One gallon of Thompson's Water Seal seals up to 400 square feet of surface area depending upon the method of application and the porosity of the material. On first application and very porous materials total coverage is less.

standard size containers Thompson's Water Seal is available in half pints, pints, quarts, 1, 5, 30 and 55 gallon containers, and new 16 oz. Aerosol Spray Cans, sealed at the factory to assure purity.

Thompson's WATER SEAL not recommended for . . .

Thompson's Water Seal is a solvent for natural rubber and should not be used on materials containing natural rubber or impregnated with natural rubber. There is no effect on synthetic rubber.

Rubber-based paints should not be applied directly to a surface sealed with Thompson's Water Seal.

Thompson's Water Seal should not be used within refrigerators intended for the storage of foods, unless ample time is allowed for the solvent to be removed completely before the temperature is lowered. Contact E. A. Thompson Co., Inc., for information on this before proceeding with such a specification.

LISTED IN SWEET'S AND WESTERN STATES A.E.C. CATALOGS

WATERPROOFING

positive protection

APPLICATION GUIDE

TYPE OF SURFACE		PROTECTION REQUIRED	HOW TO APPLY	USEFUL INFORMATION
MASONRY	**BRICK** **CON. BLOCK** **STONE** **STUCCO** **PLASTER**	To seal masonry surfaces against all of the damaging effects of moisture. Also, use Thompson's Water Seal to protect against efflorescence. May be used with excellent results to provide positive protection against dusting and the effects of corrosive chemicals like organic acids and strong alkalies. Also cures new concrete. After curing coat is dry, the bond-breaking application can be applied, then walked on one hour later.	Use brush or spray (not an atomizer), two applications four days apart. On very rough, porous surfaces (concrete block), brush in upward strokes, keeping brush saturated.	Remove and repoint loose or crumbling mortar. Should efflorescence occur between applications, brush or wash off before the second application. Always wipe up any excess sealer that remains after two hours.
	CONCRETE (CURING AND BOND-BREAKING)		NEW • above grade Use garden sprayer, two applications, four days apart. Same preparation for precast, tilt-up or Lift-Slab* construction. NEW-OLD • below grade Use brush, low-pressure spray or saturated roller-coater, two applications, four days apart. OLD • above grade See new concrete, above or below grade.	* Before applying Thompson's Water Seal, fill cracks, voids and rock pockets with a quick-set cement mixture. After concrete surface is dry, oil-based paints, alkyd resin paints, most acrylic and polyvinyl acetate paints, also oil based stucco paints, may be used over the Thompson Water Sealed surface.
	CEMENT-BASED PAINTS STUCCO WASHES	Seals against moisture when applied over. Do not apply under.	Use brush or low-pressure spray, two applications, four days apart. After two hours, wipe up any excess.	Cement-based paints, stucco washes, etc., may be treated with Thompson's Water Seal the next day.
WOOD **Redwood** **Plywood** **Pine** **Etc.**	**WOOD** **PLYWOOD**	Protect against warping, twisting, grain raising, splitting, and to retard shrinkage. Also, prevent absorption of water in concrete forms.	Submerge for 15 seconds, remove and stack wet (no sticks between plywood required) for two days. Dip again as before and restack wet for additional two days. Panels may be reversed and used without further treatment, cleaning is unnecessary between pours.	Wooden surfaces may be painted after treatment—see listing of suitable paint materials. Wood nailed in place may be treated by brushing or spraying all exposed surfaces.
	CONCRETE FORMS	See WOOD, PLYWOOD	For redwood, two applications approximately four days apart.	Concrete forms treated with Thompson's Water Seal should be thoroughly dry before concrete is poured.
	SHINGLES	See WOOD, PLYWOOD	See WOOD, PLYWOOD CONCRETE FORMS	Treatment will help to preserve the beauty of wood, shingles for years.
PAINTED	**OIL-BASE** **EXTERIOR** **ALKYD** **POLYVINYL** **ACETATE** **ACRYLIC**	Thompson's Water Seal is an underseal for control of moisture and is not intended to supplant any application of paint. Apply oil-based paints, exterior alkyd resin, and most acrylic and polyinyl acetate paints directly over Thompson's Water Seal sealed surface.	Use brush, low-pressure spray or saturated roller-coater, two applications, four days apart. May also be applied *over* any paint after it is dry and hard—at least 30 days for newly enameled or painted surfaces. Mix one pint up to one quart of Thompson's Water Seal per gallon for more waterproofing and easier brushing of oil paints, porch and deck enamels and for easier application plus better bond into surface.	* Always use a suitable flat oil-base undercoat before applying synthetic enamels (interior enamels, sash and trim, porch and deck, etc.) or rubber based paint. Water mixed paints, wallpaper paste and linoleum paste *cannot* be applied directly to a Thompson's Water Sealed surface.
TILE	**GLAZED**	To water-seal, prevent efflorescence and retard leakage.	Brush or spray, two applications, four days apart. 10-15 min. after each application, wipe off tile.	Remove and repoint loose or crumbling mortar. Use clean dry cloth to wipe off tile.
	UNGLAZED	See GLAZED	See GLAZED	See GLAZED
	FLOOR (ASPHALT, VINYL, ETC.)	Tile not to be disturbed by moisture seepage, and efflorescence if laid on concrete sealed with Thompson's Water Seal.	Seal floor before laying tile, two applications, four days apart. Apply suitable adhesive, not containing water.	If rubber tile is used—after sealing floor use suitable adhesive.
PAPER	**WALLBOARD PLASTER-BOARD**	Positive waterproofing	See WOOD, PLYWOOD	See WOOD, PLYWOOD
	PAPER AND PULP PRODUCTS **WALLPAPER**	Positive waterproofing protection or to seal surface.	See WOOD, PLYWOOD	These surfaces may be painted with suitable materials after sealing. See above list.
MISC.	**ASBESTOS**	Prevent moisture penetration.	Brush, spray, roller-coater.	Apply three applicatons if porous.
	FABRICS	To preserve. To repel water.	Brush, spray, etc., one application.	Nets, etc., should be dipped.
	METAL	Rusting of ferrous metals.	Brush, spray, etc., one application.	Dry 30 days before painting.
	ASPHALT or TAR	Moisture penetration. Also to recondition old surfaces.	Brush, low-pressure spray, roller-coater, etc.	Two applications, four days apart, usually needed. Do not flood.

Brushes and spray equipment can be easily cleaned with mineral spirits (painter's thinner) immediately after use.

WATERPROOFING

positive protection

SPECIFICATIONS FOR THOMPSON'S WATER SEAL

WATER-SEALING (five years or more) Concrete, Block, Brick, Masonry, Stucco, Tile, Wood and other Porous Materials to prevent moisture damage and accomplish moisture control for a period of five years or more.

Apply THOMPSON'S WATER SEAL to all surfaces requiring water-sealing in accordance with the manufacturer's specifications set forth herein to accomplish the following:

End-Use Results:

(1) Effective water-sealing (5 years or more) against all forms of moisture damage including resistance to many organic acids, alkalies, and salt water, as well as hydrostatic pressures, or capillary seepage.

(2) Effective water-sealing protection of maximum duration, five years or more through use of a liquid compound which will penetrate deeply into the mass on which it is applied, as contrasted with a surface coating material which is subject to breakdown by weathering, wear, abrasion, or hydrostatic pressures.

(3) Water-sealing with a non-toxic, clear, penetrating, compound that will impart no color of its own to the surface and will in no way adversely change surface texture.

(4) Water-sealing with a polymerized solution of metal organic compounds containing no resin, wax, paraffin, oil, silicate of soda or varnish which may interfere with subsequent painting.

SPECIFICATIONS:

(a) All cracks larger than "hairline," masonry joints, and surface voids shall be enlarged where necessary and pointed and/or filled with an approved quick setting Portland Cement compound. Such repairs will be immediately sprayed or brushed with THOMPSON'S WATER SEAL to control cracking and inhibit shrinkage. When the patch or repair is set, the entire surface to be sealed will be given two (2) applications of THOMPSON'S WATER SEAL, minimum four (4) days apart. Application shall not be made during rain or when the surface is wet or below 45 degrees Fahrenheit. Seal shall be applied by wet brush, lambs wool rollercoater, or low-pressure pot or tank sprayer at the rate of 150-200 square feet per gallon. Less porous materials and second applications about 400 square feet per gallon.

Care shall be taken to cover every part of surface or depressions thoroughly. A 6″ rundown is sufficient.

(b) On concrete block or other masonry of coarse or light aggregate, two (2) applications of THOMPSON'S WATER SEAL will be made by brush only, minimum of four (4) days apart. Application shall be made by stroking upward only, with a wet brush, at the rate of about 150-200 square feet per gallon; second application about 300-400 square feet per gallon. A 6″ rundown is sufficient.

(b-1) For best results on extremely porous concrete blocks of coarse lightweight aggregate, a cement wash coat or Portland Cement paint will be applied to fill surface voids prior to application of THOMPSON'S WATER SEAL. Seal will be applied by wet brush or lambs wool rollercoater, two applications minimum four (4) days apart at the rate of about 150-200 square feet per gallon. Seal will not be applied during rain or when the temperature is below 45 degrees Fahrenheit.

SERVICES

PROMPT INQUIRY SERVICE

When you have a problem involving WATERPROOFING of any material, contact the experienced staff of the E. A. Thompson Co., Inc. Chances are we can solve your problem, and at the same time, in the most economical manner. There is never any cost or obligation on your part for using our prompt inquiry service.

TECHNICAL ASSISTANCE AVAILABLE

The E. A. Thompson Co., Inc. engineering staff is ready at any time to provide specifications covering the use of any of the Thompson line of products, to meet special or unusual problems. Our staff of engineers and technicians will also analyze any of your WATERPROOFING problems and furnish you with a complete report based on recommendations backed by their many years of experience.

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E. A. THOMPSON COMPANY, INC.
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WATERPROOFING

positive protection

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